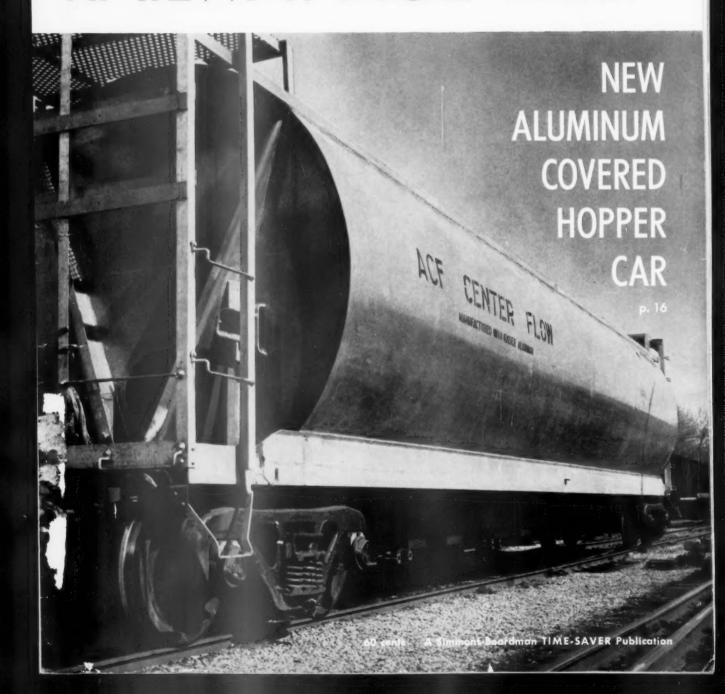
EJ&E tightens track force supervision, saves time by using **two-way radio**. p.64

May 29, 1961

FREIGHT TRAFFIC 155U

RAILWAY AGE WEEKLY



every <u>3 minutes</u> Travelift transfers a trailer for maximum piggyback profits ___



Putting trailers and containers "on the spot" for fast tractor hookup is a Travelift's full time job in this railyard. From flatbed to tractor this husky straddle type lift answers every command with a sureness that pin points Travelift's close spotting ability and amazing flexibility of handling. Even more amazing, the entire transfer operation is controlled by one man.

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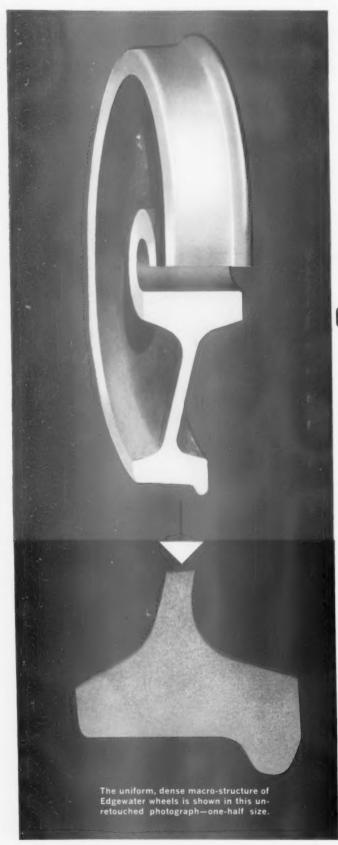
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RAILWAY AGE

WEEK AT A GLANCE

May 29, 1961 . Vol. 150, No. 22

RSMA probes marketing job

The effectiveness of shipper-oriented rates and services was examined at the spring sem-

How do rates affect distribution costs?

Freight rates, say respondents to this month's Traffic Poll, account for 1% to almost 100%

New aluminum covered hopper carries more

The car, being unveiled this week, permits effective use of at least 97% of its capacity, compared with an estimated 93% in conventional covered-hopper design p.16

Rate making to please shippers

Electronic data processing is being used successfully by Eastern railroads to develop a freight-

New ideas to increase railroad revenues

The ideas—in agricultural, forestry, real estate, industrial and zoning development—were aired

A visual panel can find cars fast

The panel, which can be tailored to individual requirements, will give prompt information

Senate sidetracks rate hearing

The railroad presentation opposing S. 1197 is still to come. Senator Yarborough, meanwhile,

Departments

Dividends Declared	
Freight Carloadings	
Industrial Traffic	
New Equipment	
New Products Report	
People in the News	
Railroading After Hours	
Railway Market	
Shippers' Guide	
Supply Trade	
The Action Page	
Traffic Poll	
Watching Washington	
You Ought to Know	

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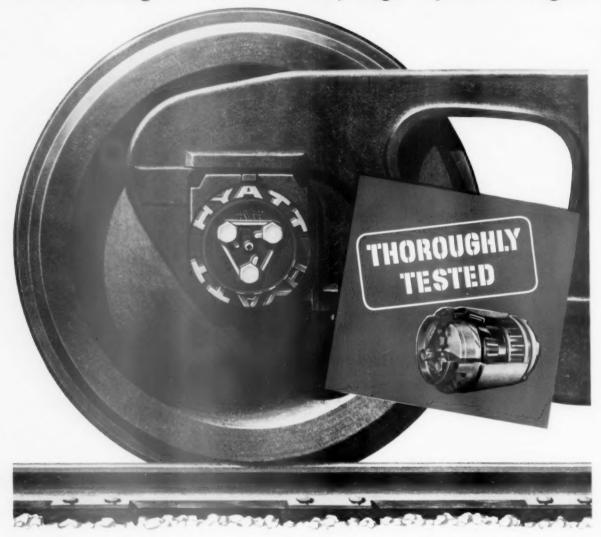
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Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada. Published weekly by the Simmons-Boardman Publishing Corporation 440 Boston Post Road, Orange, Conn. Second-class postage paid at the Post Office at Orange, Conn. James G. Lyne, chairman of the board; Arthur J. McGinnis, president and treasurer; Duane C. Salisbury, executive vice president; George Dusenbury, vice president and editorial and promotion director; Robert G. Lewis, Joe W. Kizzia, M. H. Dick, M. J. Figa, vice presidents.

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FOR NON-STOP FREIGHT



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RAILWAY AGE

WEEK AT A GLANCE

NYC, C&O, B&O to study coordination

But Central President Perlman says his agreement to participate in the studies does not

EJ&E radio tightens track force supervision

Two-way radio not only permits better deployment of labor forces, but also minimizes oper-

The Action Page—Have Yankees lost their zip?

Industrial statesmanship of extremely high caliber is required if the nation is going to cope

Short and Significant

First of six Krauss-Maffei

4,000-hp diesel-hydraulics being built for SP and D&RGW will be tested July 3-7 on the Semmering in Austria, one of Europe's most difficult mountain lines.

Yardmaster wage demands . . .

went before an emergency board in Washington last week, forestalling a threatened strike (which had been set for May 22) over the 19-month-old dispute.

Southern Pacific stockholders . . .

have approved a proposal to merge three wholly owned subsidiaries—Texas & New Orleans, El Paso & Southwestern and El Paso Southern—into the parent company.

Basic coach fares . . .

on 27 Western railroads are scheduled to go up 5% on July 1, but the increase, the first since 1959 on most roads, will still leave fares lower than 1920 levels.

Current Statistics

Operating revenues	
3 mos., 1961	\$2,128,831,304
3 mos., 1960	2,411,781,592
Operating expenses	
3 mos., 1961	1,781,378,954
3 mos., 1960	1,913,520,593
Taxes	
3 mos., 1961	228,698 551
3 mos., 1960	266 395,272
Net railway operating income	
3 mos., 1961	23,193,025
3 mos., 1960	147,035,382
Net income estimated	
3 mos., 1961	ef. 13,000 000
3 mos., 1960	99,000,000
Carloadings revenue ireight	
19 wks., 1961	9,584 240
19 wks., 1960	11,350,702
Freight cars on order	
May 1, 1961	13,658
May 1, 1960	41,003
Freight cars delivered	
4 mos., 1961	12,280
4 mos., 1960	19,429

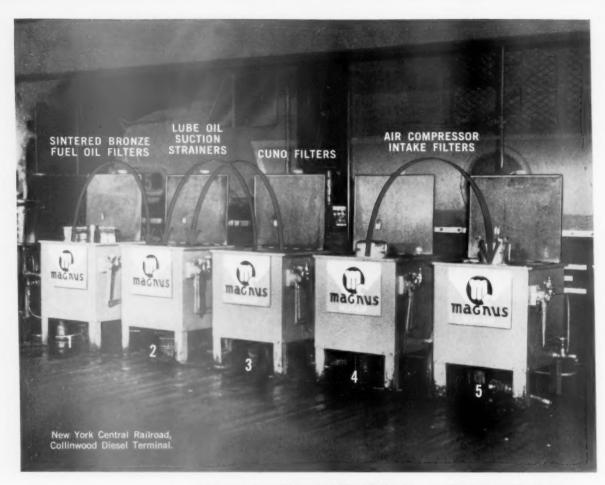
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F. T. Baker—district manager;
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FOR EXAMPLE:

CUNO FILTERS Cleaned in #3 Miji Lift rinsed in #2 Miji Lift.

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SINTERED BRONZE FUEL OIL FILTERS They're cleaned in #1 Miji Lif, rinsed in #2 Miji Lif, then blown with steam.

LUBE OIL SUCTION STRAINERS Cleaned in #3 Miji Lif; rinsed in #2 Miji Lif.

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RSMA Probes Marketing Job

► The Story at a Glance: Railroads in recent years have been employing what is for them a comparatively new weapon in the war of the market place -the marketing concept. Railway Systems and Management Association devoted its annual spring meeting to an appraisal of rail efforts to become "customer oriented" and apply a marketing concept to the job of selling their service to shippers. Association members tackled the dual problem of measuring the effectiveness of current marketing activities and mapping the road to more effective merchandising techniques and greater profits.

A. H. Hart, vice president-sales, CN, set the stage for last week's RSMA Spring Seminar, Progress in Railroad Marketing, as he warned that "we find ourselves vying for the shipper's favor in competition with the many alternatives open to him. We are now dependent on him, not he on us. Instead of producing services and prices convenient to the railways we must produce services and prices and other things needed by the shipper regardless of its inconvenience to us, providing we can make a profit."

Mr. Hart would have the marketing specialists go first to the profit and loss statement to judge the effectiveness of their efforts, but he said that next to profits "the most important bench mark in judging our railroad marketing is the extent to which a railway acts in the way the customer wants him to

Increased profits, whether from a larger market or a bigger share of the present market, must be the goal of railroad marketing and market research. Mr. Hart urged the specialists to "look through the customer's eyes" and concentrate on getting a bigger slice of the present market.

"We can do something about increasing the demand for shipping by providing the necessary rate and service incentives to reduce decentralization of industry. In a sense decentralization is our most insidious competitor as it steals business from us in a way that cannot be recaptured."

CN's vice president said the following criteria must be considered in judging the adequacy of marketing efforts:

- How successful are we in getting everyone in our company customer oriented?
- Are we capturing business from competitors and preventing loss of business to them?
- To what extent are we improving our price?
- To what extent are we improving our service?
- What progress are we making in improving our product by new car design and new handling methods?
- How good is our sales force and what steps are needed to improve it?
- To what extent are we anticipating the future?
- To what extent are we improving the utilization of our human resources?

Customer-oriented rates and service, resulting from a coordinated shipper-carrier approach to a specific problem, have produced increased rail traffic and substantial distribution savings for at least one shipper. C. D. Forbes, traffic manager, Macklanburg-Duncan Co., Oklahoma City building products manufacturer, said that by publishing

incentive rates on M-D traffic originating at Oklahoma City, REA Express had increased its share of M-D's annual 12.5 million pounds of small lot shipments from 14.5% to 89%. Most of this had formerly moved by truck. He said that, in return for the lower rates, Macklanburg-Duncan performs all billing paperwork, preparing a three-part express receipt for each shipment, an REA manifest form and pre-printed sight drafts for collection of all prepaid charges at origin stations.

In conjunction with the incentive rates, Mr. Forbes said that REA has improved its service by establishing container routes set up according to M-D sales territories which have eliminated excessive handling and reduced loss and damage.

Lack of communication—a problem in any new development—hampered the effectiveness of one railroad's pioneering efforts in the adoption of a marketing concept. D. L. Loftus, assistant to the president, WP, reported that Western Pacific's initial attempt to customer orient its personnel lacked success because "we tended to over-

Tri-Levels Survive Derailment

Multi-level auto rack cars have come through their first major derailment, bloodied but relatively unbowed.

On Saturday morning, May 20, a broken wheel on a hopper car put 24 cars of a 116-car Wabash freight train on the ground at Gibson City, Ill. Eight loaded tri-levels were among the cars derailed—here's what happened:

- Of the 96 Lincolns and Thunderbirds loaded on the eight rack cars, 84 were damaged in varying degree.
- Only one of the derailed tri-levels overturned. Tie-downs, Wabash reports, "all held remarkably well and very few of these devices actually broke. None of the cars broke loose from its moorings,"
- Damage to the 84 automobiles "was caused mainly by shifting lading from other cars and from the buckling effect to the sides and ends as the cars knocked into each other."

No dollar estimate of the overall damage was immediately available.

glamorize market research as some sort of magic formula for solving marketing

problems."

WP adopted the marketing concept and completely reorganized its existing Traffic Department on January 1, 1959. Since then it has stepped up its personnel training program to give every employee a more thorough knowledge of the railroad's overall operation. "We are convinced," said Mr. Loftus, "that an effective market research effort is dependent upon the understanding and acceptance of such services by all key line traffic officers. Thus, market research projects must be initiated, and the results tendered, in a manner which places the line officer in a prominent position from the initial proposal to the implementation of the action plan."

RSMA panelists exploring the use of advertising as a means of generating freight traffic concluded that competition has created a greater need for railroads to keep shippers informed.

Panelist E. P. Calvert, director of public relations and advertising, Pullman-Standard, urged railroads to advertise specific new services, schedules and equipment.

Institutional advertising gains little traffic, according to G. R. Johnston, general sales manager-freight, CN, who feels that advertising "should be pointed towards persuading a shipper to change his transportation and distributing methods."

New York Central's vice presidentmarketing, A. E. Baylis, moderating a discussion of Informational Needs for An Improved Marketing Effort, said that by improving our supply of information we are providing sharper sales tools. "In the transition from the outmoded theories of the past we are trying and will continue to try every type of new pricing approach which seems feasible. Every one of these approaches has one thing in common. Rates must be customer-tailored and based on sound market research and on a firm relationship to the costs of the service."

At RSMA's ninth annual meeting, concluding the three day seminar, L. W. Monk, vice president-operations, Frisco, was elected president of the association

to succeed R. D. Lake, general manager, B&LE.

ATSF to Buy Equipment To Piggyback Perishables

Santa Fe will inaugurate a new piggyback service for perishable movements out of California and Arizona as soon as the required equipment can be acquired. ATSF President Ernest S. Marsh said his road will buy 150 refrigerator trailers and 100 85-ft flat cars to handle the service.

Santa Fe's plan will involve shipment of fresh fruits and vegetables between California-Arizona and points in Texas, Oklahoma, Kansas, Colorado and Missouri. The new operation is intended to augment Santa Fe's existing ice- and mechanical-refrigerator service.

Mr. Marsh pointed out that "two trailers transported on one flat car affords increased capacity over regular refrigerator cars. This will allow us greater competitive flexibility by providing our shippers with door-to-door service [and] economical rail transportation.

WATCHING WASHINGTON WITH WALTER TAFT

• SHIPPER FIGHT against liability-limiting rules is not won yet. It will go on whether the ICC accepts or appeals from a ruling of the federal district court for the Eastern District of Virginia.

THE RULING is adverse to the Commission's determination that it lacks authority to approve tariffs which would limit carrier liability to \$3 per pound, with maxima of \$200,000 per rail shipment, and \$150 per package, or \$100,000 per consignment, for truck shipments. Additional charges would be assessed for declared values in excess of these amounts.

THAT COMMISSION DETERMINATION of early last year was taken to court by the railroads and truckers. Shippers' opposition to the proposed departure from the commodity-by-commodity approach to released-rate rules is spearheaded by the National Industrial Traffic League. The shippers profess sympathy for the carriers' desire to protect themselves against large claims, but argue that the proper approach is to adjust specific rates to reflect the risks.

THE COURT did not pass on the merits of the proposed rules. It merely rejected the Commission's disclaimer of authority and sent the case back for consideration on the merits. The Commission has not yet decided whether to proceed on that basis or appeal to higher courts. Meanwhile, the NIT League has served notice that it will continue to oppose the proposed rules.

 ICC POWER to forbid unlawful discrimination is not lost because the Commission lacks complete authority over international railroad rates. The United States Supreme Court has so ruled.

IN ISSUE were joint through rates on asbestos products originating in Canada and moving to points in Official Territory. They were assailed by consignees in Southern Territory who had to use substantially higher combination rates. The Commission condemned the latter and the railroads took the case to court.

THE CARRIERS WON in the federal district court for the District of Vermont, which held that the Commission overstepped jurisdictional bounds in that it attempted to control the Canadian part of the transportation. The Supreme Court disagreed, holding that the Commission was dealing only with that part of the transportation which was within the United States. With any other holding, the Commission's mandate to prevent discriminations would be "frustrated" as to international shippers, the court added.

• \$2.62 PER HOUR was last year's average straight-time hourly wage rate for all railroad employees. That 12-months figure was 4 cents less than the December average of \$2.66. The 12-months average for 1959 was \$2.56. With officers and their staffs excluded, the 1960 averages become \$2.57 for the 12 months and \$2.61 for December.





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HUGH R. LAMB, general agent, established OUR PHILA-DELPHIA OFFICE in 1956. From the "Quaker City" he also calls on shippers in that part of Pennsylvania east of the Susquehana, in parts of New Jersey, all of Delaware and Maryland, Washington, D. C., and other cities in the peninsular area.

Hugh, a Texan, attended the University of St. Mary, San Antonio, and the University of Houston. At Houston, he worked for the Southern Pacific and Missouri Pacific before joining our traffic department in 1945 as steno-clerk. From this position, Hugh has risen steadily, first to city freight agent, then to traveling freight agent, then to general agent at Little Rock, where he spent

two years before going to Philadelphia.

Besides his work and family, Hugh has a variety of interests.
High among them is the direction of choral groups.
More than a handyman, he has remodeled three homes acquired in moves occasioned by his promotions.

Among products handled by us to and from our Philadelphia territory are chemicals, pulpboard, rubber, iron and steel articles, alkali, petroleum products, and a variety of manufactures.

For the privilege of participating in this traffic—so important to us—we join general agent Lamb in a sincere "Thank you!"

J. W. SCOTT, Vice Pres.—Traffic, Kansas City 5, Mo.

Our Philadelphia Office 840 Philadelphia National Bank Bldg.



How Do Rates Affect Costs?

Proposition

In the past two years, rail carriers have undertaken several freight rate innovations—including contract rates, incentive rates based on higher minima, and volume rates. Such developments suggest strong carrier emphasis on the role of the freight rate in modern distribution. Actually, distribution is an all-embracing term, including total packaging and handling costs from the production line to the consumer.

Questions

(1) In considering your total distribution costs, what value do you assign to the freight rate? Is it your most important consideration?

(2) What percentage value would you assign to it as part of your total delivered cost (packaging, materials handling, loading costs, loss and damage costs)?

Over two-thirds of respondents to this month's Traffic Poll termed the freight rate of primary importance in total distribution costs. As to what percentage of delivered cost the freight rate is, estimates ranged from 1% to almost 100%.

Those who did not find the freight rate the most important factor in total distribution costs nevertheless listed it high. Some respondents thought service, material costs, labor, warehousing, and packaging costs more important than freight rates.

"On distribution to customers, service is our paramount consideration, with freight rates second," writes Walter K. Cabot, general traffic manager of Johnson & Johnson, New Brunswick, N. J. "On branch and warehouse shipments, rates are more important, with service important especially as it affects inventory investment costs."

Mr. Cabot also feels that packaging is important where raw materials susceptible to bulk handling are involved.

K. A. Anderson, traffic manager of Flour City Arch Metals, Division of Hupp Corp., ranks freight costs fourth after material costs, labor, and overhead

Andrew A. Jusko, traffic manager, Trenton [N. J.] plant, Fedders Corp., says freight costs rank third next to raw materials and labor. Keeping prices of these three factors to a minimum, he believes, assures a fair price on finished goods to the customer. Mr. Jusko also warns of carriers "flagging out" a rate increase to get the business. "Over 50% of the time," he says, "this carrier will not perform the service, deliveries are late, and damages are greater."

Mr. Jusko estimates the freight rate to run between 1% and 10% of delivered cost, "depending on the product shipped and its destination."

R. L. Kendall, assistant general traffic manager, Inland Container Corp., Indianapolis, Ind., feels that the value of the freight rate "varies in indirect proportion to the demand for service.

"Our industry is characterized by high value to freight rates (80-90%)," he writes, "but modern technology and competitive business aspects are tending to reduce that value in favor of the "total cost" concept."

Phillip T. Catalano, traffic manager, Steelcase, Inc., Grand Rapids, Mich., also cites the "total cost approach." He says that "freight cost is one of many cost factors taken into account under this method. Labor, packaging, warehousing and inventory costs, are other important factors. Partial value is, therefore, assigned to the freight rate."

In some instances, thinks George Frank, traffic manager, H. L. Green Co., New York City, "packaging cost is as much or more than the freight rate."

"Service is our first consideration with the freight rate next," writes Albert P. Gould, traffic manager. Simonds Saw & Steel Co., Fitchburg, Mass. "By service we mean from date of receipt of order until delivery to customer."

Mr. Gould estimates freight rate cost as 25% of the total distribution cost.

"The cost of inventory and warehousing seems to have become more important than freight rate of late," believes R. J. Garrison, traffic manager, A. B. Dick Co., Chicago, Ill.

"Freight rates are the only consideration in our distribution," says W. J. Edmonds, general traffic manager. Granite City (III.) Steel Co. "We estimate it to be 90% of costs."

George Perten, traffic manager, Virginia Dare Extract Co., Inc., Brooklyn, N. Y., explains:

"I would say that the actual freight cost plays a dominant factor in our distribution picture. We find these days that we are being asked time and time again to quote on a delivered basis, i.e., F.O.B. destination. With the cost

of materials, packaging, etc., being fixed, the cost of getting the merchandise from our plant to the ultimate customer becomes a highly important factor in our considerations. We find ourselves repeatedly in a situation where customers will indicate to us that they would favorably consider a certain purchase price. The traffic department is then asked whether it can possibly make delivery of the shipment to the consignee at a certain maximum delivery cost per hundredweight. This figure is the amount left over from the purchase price after all other factors have been taken care of. Considering further that frequently freight charges amount to 10% or more of invoice value, the importance of freight charges cannot be overlooked.'

Arthur B. McComb, treasurer and traffic manager, Smith Brothers, Inc., Poughkeepsie, N. Y., lists the freight rate and/or minimum charges as 60% of his distribution cost.

Arthur C. Roy, director of traffic, Pennsylvania Glass Sand Co., Pittsburgh, Pa., says the freight rate is "practically 100%" of his total delivered cost, "as packaged material is only a small part of our total distribution."

F. L. Thomas, traffic manager, Wisconsin Canners Association, Madison, Wisc., assigns a primary importance to the freight rate because "we are always trying to reach out into new territory and hold that which we have at the present time. Competition in the sale of canned goods is very stiff."

Mr. Thomas figures the freight rate at "5% to 10% of our costs, dependent on distance."

Howard D. Pollen, traffic manager, P. Ballantine & Sons, Newark, N. J., writes: "Freight rates (rail) are our most important consideration when considering total distribution costs because, along with these rail rates, we must consider classification package requirements that in themselves tend to increase packaging costs; therefore, total distribution costs.

"Again, freight rates (rail) are our most important consideration because by using mechanical fork lift trucks to load all types of vehicles—rail, truck, piggyback, fishyback—the loading of the rail car is more expensive because of the additional bracing that is required to fill the entire area of car space to prevent damage. Further, protective service by rail is a required necessity to protect lading from freez-

(Continued on page 69)



HUGH R. LAMB, general agent, established OUR PHILA-DELPHIA OFFICE in 1956. From the "Quaker City" he also calls on shippers in that part of Pennsylvania east of the Susquehana, in parts of New Jersey, all of Delaware and Maryland, Washington, D. C., and other cities in the peninsular area. Hugh, a Texan, attended the University of St. Mary, San Antonio, and the University of Houston. At Houston, he worked for the Southern Pacific and Missouri Pacific before joining our traffic department in 1945 as steno-clerk. From this position, Hugh has risen steadily, first to city freight agent, then to traveling freight agent, then to general agent at Little Rock, where he spent two years before going to Philadelphia.

Besides his work and family, Hugh has a variety of interests. High among them is the direction of choral groups. More than a handyman, he has remodeled three homes acquired in moves occasioned by his promotions. Among products handled by us to and from our Philadelphia territory are chemicals, pulpboard, rubber, iron and steel articles, alkali, petroleum products, and a variety of manufactures.

For the privilege of participating in this traffic-so important to us-we join general agent Lamb in a sincere "Thank you!" J. W. SCOTT, Vice Pres.—Traffic, Kansas City 5, Mo.

Our Philadelphia Office

840 Philadelphia National Bank Bldg.



How Do Rates Affect Costs?

Proposition

In the past two years, rail carriers have undertaken several freight rate innovations—including contract rates, incentive rates based on higher minima, and volume rates. Such developments suggest strong carrier emphasis on the role of the freight rate in modern distribution. Actually, distribution is an all-embracing term, including total packaging and handling costs from the production line to the consumer.

Questions

(1) In considering your total distribution costs, what value do you assign to the freight rate? Is it your most important consideration?

(2) What percentage value would you assign to it as part of your total delivered cost (packaging, materials handling, loading costs, loss and damage costs)?

Over two-thirds of respondents to this month's Traffic Poll termed the freight rate of primary importance in total distribution costs. As to what percentage of delivered cost the freight rate is, estimates ranged from 1% to almost 100%.

Those who did not find the freight rate the most important factor in total distribution costs nevertheless listed it high. Some respondents thought service, material costs, labor, warehousing, and packaging costs more important than freight rates.

"On distribution to customers, service is our paramount consideration, with freight rates second," writes Walter K. Cabot, general traffic manager of Johnson & Johnson, New Brunswick, N. J. "On branch and warehouse shipments, rates are more important, with service important especially as it affects inventory investment costs."

Mr. Cabot also feels that packaging is important where raw materials susceptible to bulk handling are involved.

K. A. Anderson, traffic manager of Flour City Arch Metals, Division of Hupp Corp., ranks freight costs fourth after material costs, labor, and overhead

Andrew A. Jusko, traffic manager. Trenton [N. J.] plant, Fedders Corp., says freight costs rank third next to raw materials and labor. Keeping prices of these three factors to a minimum, he

believes, assures a fair price on finished goods to the customer. Mr. Jusko also warns of carriers "flagging out" a rate increase to get the business. "Over 50% of the time," he says, "this carrier will not perform the service, deliveries are late, and damages are greater."

Mr. Jusko estimates the freight rate to run between 1% and 10% of delivered cost, "depending on the product shipped and its destination."

R. L. Kendall, assistant general traffic manager, Inland Container Corp., Indianapolis, Ind., feels that the value of the freight rate "varies in indirect proportion to the demand for service.

"Our industry is characterized by high value to freight rates (80-90%)," he writes, "but modern technology and competitive business aspects are tending to reduce that value in favor of the "total cost" concept."

'total cost' concept."

Phillip T. Catalano, traffic manager, Steelcase, Inc., Grand Rapids, Mich., also cites the "total cost approach." He says that "freight cost is one of many cost factors taken into account under this method. Labor, packaging, warehousing and inventory costs, are other important factors. Partial value is, therefore, assigned to the freight rate."

In some instances, thinks George Frank, traffic manager, H. L. Green Co., New York City, "packaging cost is as much or more than the freight rate."

"Service is our first consideration with the freight rate next," writes Albert P. Gould, traffic manager, Simonds Saw & Steel Co., Fitchburg, Mass. "By service we mean from date of receipt of order until delivery to customer."

Mr. Gould estimates freight rate cost as 25% of the total distribution cost.

"The cost of inventory and warehousing seems to have become more important than freight rate of late," believes R. J. Garrison, traffic manager, A. B. Dick Co., Chicago, Ill.

"Freight rates are the only consideration in our distribution," says W. J. Edmonds, general traffic manager. Granite City (III.) Steel Co. "We estimate it to be 90% of costs."

George Perten, traffic manager, Virginia Dare Extract Co., Inc., Brooklyn, N. Y., explains:

"I would say that the actual freight cost plays a dominant factor in our distribution picture. We find these days that we are being asked time and time again to quote on a delivered basis, i.e., F.O.B. destination. With the cost

of materials, packaging, etc., being fixed, the cost of getting the merchandise from our plant to the ultimate customer becomes a highly important factor in our considerations. We find ourselves repeatedly in a situation where customers will indicate to us that they would favorably consider a certain purchase price. The traffic department is then asked whether it can possibly make delivery of the shipment to the consignee at a certain maximum delivery cost per hundredweight. This figure is the amount left over from the purchase price after all other factors have been taken care of. Considering further that frequently freight charges amount to 10% or more of invoice value, the importance of freight charges cannot be overlooked."

Arthur B. McComb, treasurer and traffic manager, Smith Brothers, Inc., Poughkeepsie, N. Y., lists the freight rate and/or minimum charges as 60% of his distribution cost.

Arthur C. Roy, director of traffic, Pennsylvania Glass Sand Co., Pittsburgh, Pa., says the freight rate is "practically 100%" of his total delivered cost, "as packaged material is only a small part of our total distribution."

F. L. Thomas, traffic manager, Wisconsin Canners Association, Madison, Wisc., assigns a primary importance to the freight rate because "we are always trying to reach out into new territory and hold that which we have at the present time. Competition in the sale of canned goods is very stiff."

Mr. Thomas figures the freight rate at "5% to 10% of our costs, dependent on distance."

Howard D. Pollen, traffic manager, P. Ballantine & Sons, Newark, N. J., writes: "Freight rates (rail) are our most important consideration when considering total distribution costs because, along with these rail rates, we must consider classification package requirements that in themselves tend to increase packaging costs; therefore, total distribution costs.

"Again, freight rates (rail) are our most important consideration because by using mechanical fork lift trucks to load all types of vehicles—rail, truck, piggyback, fishyback—the loading of the rail car is more expensive because of the additional bracing that is required to fill the entire area of car space to prevent damage. Further, protective service by rail is a required necessity to protect lading from freez-

Aluminum Can Handle Many Products

A list of products that can be handled satisfactorily by the alloy used in the new tubular car described in these pages has been compiled. The list was made by Kaiser Aluminum's Department of Metallurgical Research, using ICC commodity classifications. It includes mainly larger tonnage items normally handled in open and covered hopper cars. It also contains certain other families of products hauled in other types of cars. Two basic criteria used to establish compatibility of car and lading were: (1) The commodity will not attack aluminum, and (2) aluminum will not contaminate the commodity.

products in this group can be handled satisfactorily. Wheat, corn, other grains, flour and other products from these grains, and dried or fresh bulk vegetables would not affect aluminum. Bare aluminum is both technically feasible and legally acceptable for handling these and other food products. Aluminum is non-toxic. In the amounts which would be ingested by the human body through ordinary contact in handling and processing equipment, aluminum is without physiological effect on the body.

No product in this group will affect aluminum's performance in railroad rolling stock. Aluminum milk cans and transport tankers are used extensively in England and in Europe. Margarine and butter are wrapped in aluminum foil. Certain sea foods, such as tuna and sardines, have been packaged in aluminum cans. Federal regulations allow only aluminum and stainless-steel shipping containers for oysters.

Group 3. Products of Mines. For coal and coke, numerous examples of successful application in coal-handling equipment attest the suitability of aluminum. Nearly all ores and concentrates of ores can be

handled satisfactorily in aluminum. The major exception is copper ores and concentrates because danger of reducing copper on the surface of aluminum is present. Aluminum, zinc, or lead ores and concentrates would not present such a hazard.

Crude petroleum and asphalt present no hazard to aluminum equipment. Aluminum dump bodies have provided excellent service with such products. Aluminum is not attacked by sulfur in liquid, solid, or vapor form. Experience includes highway tank trailers and open hopper cars on at least two major railroads.

Dry salt does not affect aluminum. Contrary to earlier experience with other aluminum alloys, the tubular-car alloy is affected only by minor pitting.

wood products have no effect on aluminum. The only problems encountered have resulted more from the influence of "poultice" action (the contact of alternately wet and dry material) than from the chemistry of the wood products.

Group 5. Manufacturers and Miscellaneous Aluminum is not attacked by refined petroleum products and has been used in processing, transport, and storage equipment for many years. Neither do other gaseous products—like argon, helium, hydrogen, nitrogen, and many other gases—have any effect on aluminum.

Vegetable oils do not affect aluminum. Aluminum, in turn, does not affect the color of vegetable oils. Aluminum is compatible with rubber products (crude, natural, or synthetic).

Inorganic acids (hydrochloric, sulfuric, phosphoric, hydrofluoric, and nitric) cannot be handled in aluminum equipment in certain concentrations. Concentrations of sulfuric acid over 98%, and nitric acid over 80%, can be handled satisfactorily. Other organic acids can also be handled, depending on concentration.

New Aluminum Covered Hopper

➤ The Story at a Glance: The covered hopper car is rapidly becoming a testing ground for new design ideas and the application of new metals in railroad service.

Latest entry in this arena is making its appearance this week. American Car & Foundry Division of ACF Industries, Inc., with assistance from Kaiser Aluminum, has designed a tubular aluminum covered hopper that "weighs less, costs less, and increases the load limit."

With the pilot model built and most tests completed, ACF soon will be ready to begin construction of 60 of the new 4,000-cu-ft cars. Kaiser Aluminum, leasing the cars from ACF's Shippers Car Line Division, will place them in service later this year handling alumina from Louisiana points to Ravenswood, W. Va.

The latest in a group of unusual covered hopper car designs is being officially unveiled this week at ACF's plant in Berwick, Pa. Called the Center Flow Car, the unit has an inverted pearshape cross section, weighs only 43,000 lb, yet carries 104 tons.

Engineers on the project claim sev-

eral unusual features for the new unit, in addition to low weight. It is a "monocoque" design, which means the exterior skin or shell takes the load stresses, as in an airplane. There is no conventional center sill, but only a stub sill at each end. The inverted pearshape produces only single pyramiding of lading, permitting effective use of at least 97% of cube capacity in contrast to an estimated 93% in conventional covered-hopper design. The length of the car can be varied to meet cubic capacity requirements.

The design enables Kaiser Aluminum

Both methyl and ethyl alcohol have been successfully handled. In all but the completely anhydrous state (completely devoid of water) which rarely exists, these products do not attack aluminum.

Nitrogen fertilizer solutions of the ammonium nitrate, urea, or ammoniated types can be satisfactorily handled in aluminum. Attack is usually of a general nature; therefore, aluminum has been used by bulk haulers and storage concerns when contact times are relatively short (a few days to a few months).

Paints, paint material, and varnish are without effect on aluminum and it does not effect their color. Creosote is compatible with aluminum, with the possible exception of highly contaminated creosote. Tars can generally be handled.

Corrosion of aluminum by wines and alcoholic beverages is not significant. The problem lies in the effect of aluminum upon the taste and bouquet of the particular beverage handled. The effect varies with length of storage. Usually a contact time of 72 hr is considered the maximum.

Sugar solutions have been successfully handled in aluminum by sugar and bottling companies. Refined molasses can be satisfactorily handled in aluminum. Some attack on aluminum may occur with blackstrap or residual molasses. Attack from residual molasses has been satisfactorily stopped by use of coatings.

Cement has no effect on aluminum. Aluminum should serve satisfactorily for sodium sulfate, borax and boric acid. Adipic acid has been handled successfu'ly in aluminum railroad cars.

Aluminum should not be attacked by animal and poultry feeds. Aluminum is also compatible with starch, carbon black, cryolite, silica gel, pearlite, and flourstar.

Finally, there are numerous products a given name for which may cover any of several mixtures. Suitability in such cases should be examined individually to determine the compatibility of these products with aluminum alloys used in railroad equipment.



INVERTED PEAR-SHAPE cross section of Center Flow aluminum covered hopper car permits use of at least 97% of its cubic capacity. With hatches at top centerline, normal loading produces only single pyramiding compared with double pyramiding in conventional covered hopper car.



Double Pyramiding Allows Use of 93% of Space



Single Pyramiding Allows Use of 97% of Space

Car Increases Payload Capacity

to fulfill its objective of utilizing aluminum freight cars economically in hauling alumina. Kaiser also points out that the car is equally adaptable to carrying a wide range of commodities and believes the advantages will appeal to many other shippers, particularly where aluminum eliminates existing corrosion or contamination problems. It summarizes the car's advantages as follows:

- Increases payload
- Improves volumetric efficiency
- · Allows variations of capacity
- · Provides unobstructed discharge

- · Increases rate of unloading
- · Lowers center of gravity

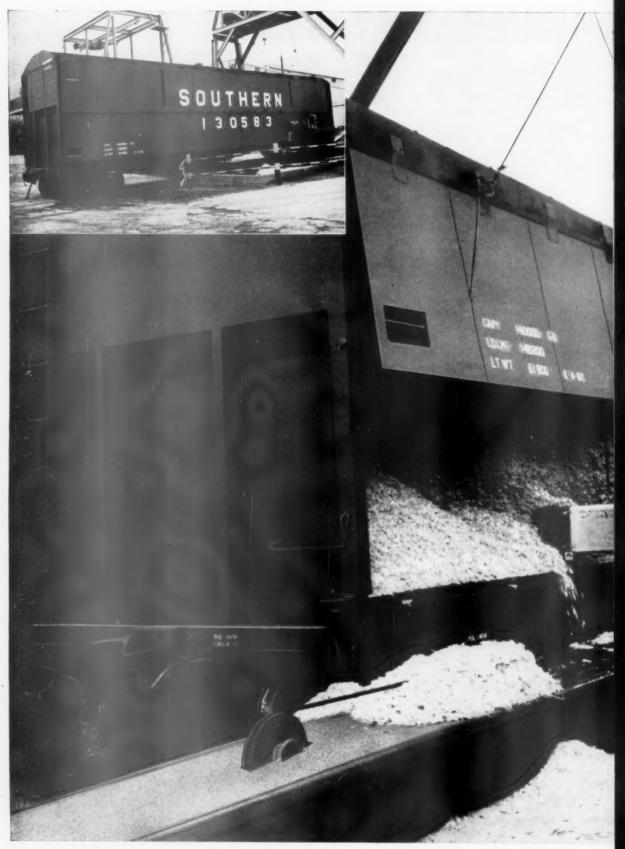
The plus on payload figures to be 28,000 lb, compared with a conventional steel covered hopper car of 4,000-cu-ft capacity, and 15,000 lb compared with a conventional aluminum covered hopper car (see Table I, p. 25).

The 251,000 lb gross allowable weight is AAR's maximum weight on rail of car and load, based on 6½-in. by 12-in. axles and four-wheel trucks. Comparison can also be made with three other covered hopper cars of recent design with the same gross allow-

able weight, but of varying cubic capacity (see Table II).

A comparison of various types of covered hopper cars, using pounds of car weight per cubic foot of carrying capacity as a yardstick, is shown in Table III.

With the Center Flow car weighing only 43,000 lb, the design permits hauling some 208,000 lbs of payload within the 251,000 lb gross allowable rail load limit. Using the 4,000 cu ft capacity, nearly 104 tons of alumina can be loaded into the car. This capacity has (Continued on page 22)





How Southern shippers save money – when the chips are down!

You're looking at a mechanical unloader at work inside one of our high-capacity cars for transporting wood chips—first of its kind in the railroad industry.

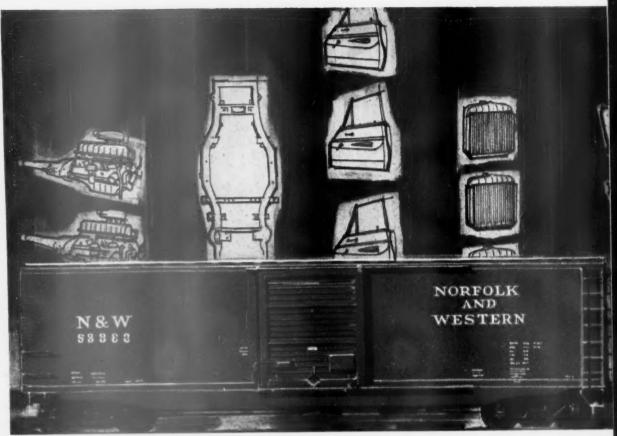
Southern-designed, this new, *extra* large-volume car is of light-weight construction with the top open for loading. The bottom half of each side opens the full length of the car for unloading. The automatic unloading machine shown here, removes chips from the car rapidly and efficiently.

Two of these custom-designed, wood-chip cars can handle the same volume of chips formerly requiring five standard hopper cars. This means substantial savings to our shippers in switching charges and inplant handling costs. Further savings result from reduced rates established by Southern to reward capacity loading.

Imaginative thinking at work on the Southern puts the accent where it belongs — on the shipper's needs! One way we do it is by tailoring equipment to specific requirements — giving better service and saving time and money for our shipper.

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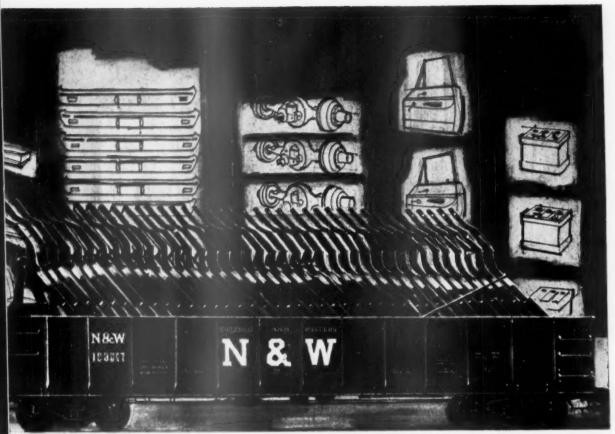
....ASSEMBLY LINE



Today, more and more manufacturers are relying on the dependable N & W as an extension of their assembly lines. By using N & W cars as warehouses on wheels, with fast delivery, inventory is reduced, working capital freed for other uses.

For example, one big automotive assembly plant on the N & W, employing 1200 to 1500 people, receives components daily from far off manufacturing bases via N & W fast freight. Freight cars must be on the plant's sidings by 6:30 a.m. so the day's production can start at 7. Because this N & W train is so dependable, parts inventories can be kept at a minimum.

Find out if your plant can cut inventory by relying on the service-minded N & W. Get in touch with your N & W freight traffic man today.



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May 29, 1961 RAILWAY AGE

Nation's Going-est Railroad



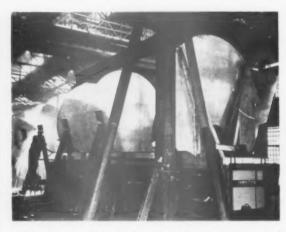
Center Flow Car Has Been Tested in Service



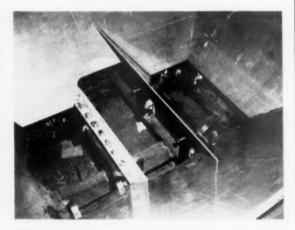
SIX LOADING HATCHES are used to load four compartments in the Center Flow covered hopper car. Using normal loading procedures almost 104 tons of alumina were loaded into car during service tests between Louisiana points and Ravenswood, W. Va.



TEST PROGRAM FOR CAR included use of 256 strain gages, some of which are shown on car side, and 12 accelerometers. Car was subjected to 41 impact tests at speeds of 2 to 11 mph and road tests up to 60 mph on both branch and mainline tracks of the Pennsylvania.



BULKHEADS AND ENDS are welded into place and form inverted pear-shape cross section. Three center partitions divide car into four compartments. They brace the shell and permit car to be used for split ladings. Partitions and sides above lower sills are ¼-in. plate.



EIGHT HOPPER OUTLETS at bottom centerline of car give unobstructed flow of lading. In unloading during service tests of alumina the hopper gates had to be partially closed because it flowed through the hopper doors faster than conveyor could handle the material.

been verified by actual loading, unloading, and road tests between Gramercy and Baton Rouge, La., and Ravenswood, W. Va.

Using normal loading methods, the capacity was found to be 103.9 tons of alumina. During the same tests it was found that the alumina flowed through the eight center hopper doors faster

than the conveyor at the unloading facilities could take the material. Consequently, the hopper doors had to be partially closed to throttle the flow.

As for utilization of cubic capacity, ACF shows that the loading hatches at the top center line of the inverted pear shape produce only single pyramiding of the lading, permitting use of at least

97% capacity. This compares with the estimated 93% utilization of space in a car of conventional design.

The Center Flow car interior is divided into four compartments by three bulkheads, or partitions, which serve two purposes. Structurally, they brace the shell; they also permit split ladings.

(Continued on page 25)

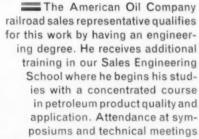
May 29, 1961





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There are no obstructions in any compartment to impede the flow during loading and unloading operations. Each end compartment does have a lateral brace on the inside tope of the shell, but these braces do not interfere with lading flow.

The length of the tubular car can be varied to meet cubic capacity requirements of any lading. This is a construction advantage, according to ACF and Kaiser, because the size of conventional cars is limited by available jigs. These companies also point out that the inverted pear-shape cross section gives the loaded car a 2-in.-lower center of gravity (84 in, vs 86 in.) than a conventional design with a rectangular cross section and the double row of discharge hoppers.

The tubular car is constructed basically from Kaiser railroad stock with some structural members of 6061 alloy. The latter is a widely used construction alloy. The railroad stock is a highstrength, weldable alloy developed some years back by Kaiser. It has good physical properties (33,000 psi minimum vield strength), is highly weldable, and has excellent corrosion resistance. About 12,000 lb of plate form the shell. Another 3,000 lb of extrusions are in the four longitudinal sills and other framing members. Roof, partitions, and sides above lower side sills are 1/4-in. plate. Lower side sills are of 131/2-lb/ft extrusions; upperside sills, 41/2-lb/ft extrusions

The car is equipped with rubber draft gear, 61/2 in. by 12 in. roller bearings, and 36-in. wheels. Trucks are A-3 Ride-Control with 21/2-in.-travel springs.

Thorough and extensive testing of the car has been completed, including static, impact, road, and service tests. Fatigue tests will be completed before the cars go into production in early August.

Robert M. Cook, test section head of ACF's Research Laboratories at the Berwick, Pa., plant where the car was built, said, "Tests have verified theoretical assumptions and design parameters."

The car was subjected to 41 impact tests at speeds of 2 to 11 mph. Road tests at speeds up to 60 mph were made on branch line and mainline tracks of the Pennsylvania with the car empty, partially loaded, and fully loaded. The cars were loaded with coal for these tests because its weight per cubic foot is approximately the same as alumina. Tests were fully instrumented to measure coupler forces, strains, accelerations, and velocities. Instruments included 256 strain gages and 12 accelerometers.

	Table I		
Capacity, cu ft	Steel conventional, estimated 4,000	Aluminum conventional, estimated 4,000	Aluminum Center Flow 4,000
Gross allowable	1,000	4,000	-,,000
weight, lb	251,000	251,000	251,000
Light weight, lb	71,000	56,000	43,000
Load limit, lb	180,000	195,000	208,000
Load increase, lb	*********	15,000	28,000

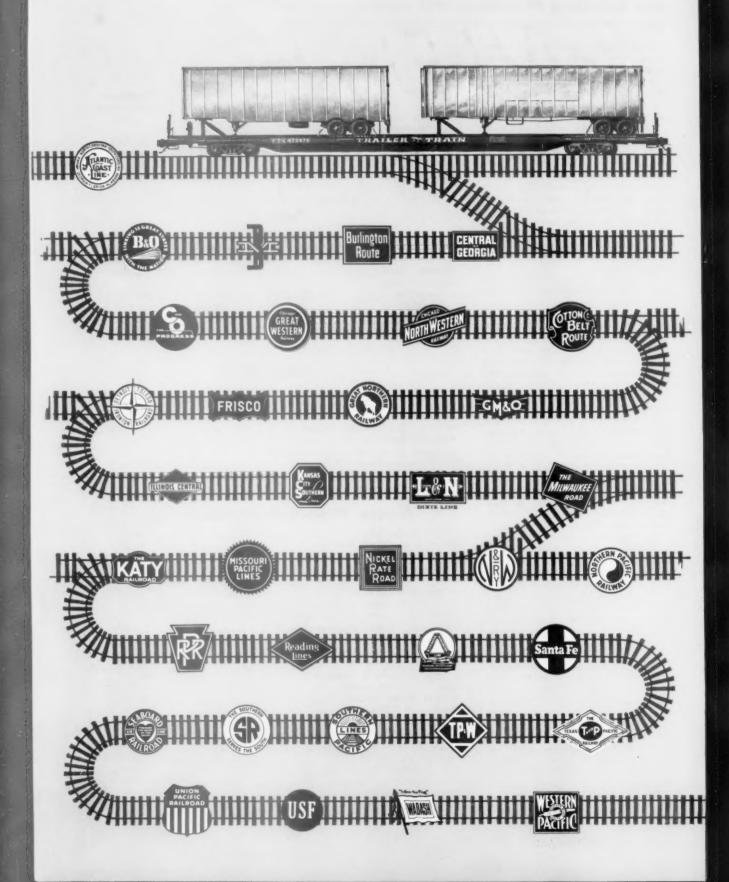
Table II Tenelon Southern Southern stainless steel. aluminum. aluminum. conventional conventional conventional Capacity, cu ft 3.750 3.818 4,713 Gross allowable weight, lb 251,000 251,000 251,000 Light weight, lb 58,500 57,500 50,100 Load limit, lb 192,500 193,500 200,900 Load increase, lb 12,500 20,900 13,500

Lb per cu ft Aluminum Center Flow (4,000 cu ft) 10.75 Aluminum Southern conventional (4,713 cu ft) 122 Aluminum Southern conventional (3,818 cu ft) Tenelon conventional (3,750 cu ft) Steel conventional (4,000 cu ft)-est. 17.75

Table III

General Dimensions of Tubular Car Length, inside, ft-in. 46-6 Length, over strikers, ft-in. 56-6 Width over-all, ft-in. 10-2-1/2 Width inside, ft-in. 10-2 Over-all height from rail, ft-in. 14-0 Height rail to top of shell, ft-in. 13-4-5/16 Height rail to bottom of discharge outlet, ft-in. 9-1/2 Height rail to center line of coupler, ft-in. 2-10-1/2 Height rail to bottom of center plate it in

neight rail to bottom of center plate, ft-in	2-1-3/4					
Slope of end of floor sheet, deg	50					
Slope of crossridge sheet, deg.	50					
Slope of side sheet, deg.						
Number of discharge openings	8					
Size of discharge openings, in.						
Number of roof hatches	6					
Diameter of roof hatches, in	30					
Truck centers, ft-in.	46-6					
Truck wheel base, ft-in.	5-10					
Wheel diameter, in	36					
Nominal capacity, lb	200,000					
Actual capacity, lb	208,000					
Cubic capacity full, cu ft	3,950					
Estimated light weight, lb						
Center of gravity, loaded car, in.						



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RESEARCH TEAM of W. Wallace (computer operations), E. S. Lord (field surveys), R. T. Smith (assistant director) at computer.



KEY PUNCH OPERATOR Mrs. E. C. Jordan punches additional data into cards of the ICC 1% waybill sample before processing.

Rate Making to Please Shippers

► The Story at a Glance: Eastern railroads are steadily and systematically developing a freight-rate program aimed to benefit shippers and carriers alike. Basic to the program is a continuing compilation of all significant data on traffic volume (by rail and truck) of specific commodities, including comparative charges and cost estimates. This is prepared by the Traffic Executive Association - Eastern Railroads commercial research staff from duplicates of Official Territory punch cards from the ICC 1% waybill samplewith additional information punched in. By field surveys and from published statistics, the staff determines total movement (including trucking) of each commodity. Electronic data processing is used to summarize and analyze the data. The procedure was described at a Railway Systems and Management Association meeting on May 24 by R.T. Smith, assistant director of commercial research, TEA-ER.

Electronic data processing is being used successfully by the Eastern Railroads' Traffic Executive Association to compile cost data from which rates attractive to shippers can be formulated.

To make estimates of railroad costs readily available for any weight of movement, for any distance up to 1,800 miles, in any class of equipment, the TEA researchers make an individual cost computation on an ICC Form A basis, brought up-to-date to January 1961 for each weight, distance and equipment type. These figures, mimeographed in tabular form and bound into a 200-page volume, provide instant rail cost information on any type of shipment within Eastern Territory.

Out-of-pocket costs thus made available are average costs for the Eastern District and are not necessarily the actual costs of a specific movement by an individual railway. The cost figures do, however, provide information as to the probable "floor" of freight rates to

be recommended for application on a territory-wide basis. Individual railroads can adjust the figures as they see fit, depending on their own costs, for application to specific situations.

The TEA researchers are assigned a wide variety of tasks, but their continuing and basic responsibility is to provide detailed analyses of rail movement and charges on specific commodities—with comparisons of tonnage and costs of other methods of transportation. The end product of each such research project is a recommended revision in rates on a commodity, calculated to prove more attractive to patrons than existing rates—and thus to improve railroad traffic and net earnings from the handling of the commodity.

The rate researcher's function is advisory only. Actual rates decided upon are determined by specified traffic officers and rate committees, as hereto-

(Continued on page 32)

Average Eastern District Out-of-Pocket Costs*

Commodities Moving as Intra-Territorial Interline Shipments
in an Average Weight Train in a Box Car

Costs in Cents per Hundredweight for Various Weight Loads

28300	CMI																				
Miles	900	940	980	1020	1060	1100	1140	1180	1220	1260	1300	1340	1380	1420	1460	1500	1540	1580	1620	1660	
40	11	1.1	11	10	10	10	10	9	9	9	9	9	8	8	8	8	8	8	8	8	
45	12	11	11	11	10	10	10	10	9	9	9	9	9	8	8	8	8	8	8	8	
50	12	11	11	11	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8	8	
55	12	12	11	11	11	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8	
60	12	12	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8	

*Costs shown are based on 1959 Eastern District operations, excluding Pocahontas, adjusted to 1/1/61. Costs include a 13% circuity factor, but do not include any allowance for loss and damage. See Appendix A for appropriate loss and damage.

INSTANT RAIL COST information on any type of shipment within Eastern Territory is available in a 200-page

volume. A sample of the information is shown here. The 28300 refers to an ICC docket on rate scales.



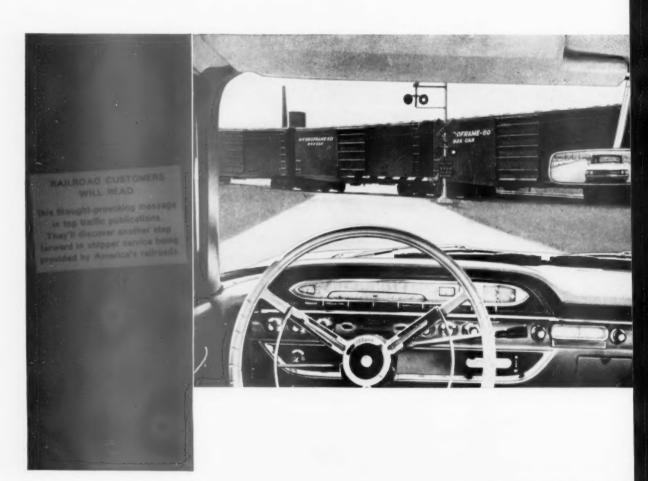
THE ROUTE OF COURTEOUS SERVICE



FORD

TESTS HYDROFRAME -60 WITH SHIPMENT OF AUTO-GLASS

Windshield, Back and Side Window Glass Shipment



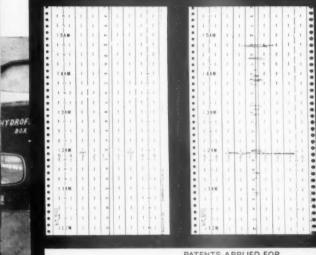
■ The Ford Motor Company, in its constant search for new and better ways of transporting goods and products, cooperated with Pullman-Standard in a test shipment of auto-glass from the Ford Glass Division Plant at Nashville, Tenn., to the Ford assembly plant in St. Paul, Minn.

This shipment-in a Pullman-Standard Hydroframe-60 Box Car-arrived flawless; not one nick, chip or crack could be found in the entire 86,095 pound load. And this was after 870 miles of travel over three roads and 2 car impacts (registered at the coupler) that reached as high as nine miles per hour.

How does the P-S Hydroframe-60 protect fragile loads such as this against bruising impacts? A special underframe which incorporates the new long travel hydraulic cushioning principle takes impacts of 10 mph-and above-and literally swallows them up. They never reach the load!

For details on the Hydroframe-60, or for information on the availability of these cars for your shipments, call or write us today.

Handled Like Grandmother's Best Crystal... Delivered Flawless



PATENTS APPLIED FOR

NINE MPH IMPACT AT THE COUPLER: NO IMPACT ON THE LOAD-Two impact recorders rode the P-S Hydroframe-60 one with the load, the other on the underframe, Two impacts topped 9 mph at the coupler (one is visible on the recording tape at right), others were at 5, 7 and 8 mph. As you can see, none of these impacts reached the load as shown by the impact recorder tape on the far left.

A 43 TON HANDLE-WITH-CARE LOAD-Ford's glass shipment in the P-S Hydroframe-60 weighed in at 86,095 pounds. Approximately 26,000 pounds of windshield glass went into the A-end and 59,935 pounds of side and rear window glass into the B-end. Condition on arrival: claim-free!



A DIVISION OF PULLMAN INCORPORATED 200 SOUTH MICHIGAN AVENUE, CHICAGO 4, ILLINOIS BIRMINGHAM . PITTSBURGH . NEW YORK J. C. FENNELLY CO., SAN FRANCISCO REPRESENTATIVE

fore. The research staff reports its findings to a special committee of experienced rate officers who, in turn, prepare the proposals for submission to the regular rate committees.

The basic "raw material" of the continuing research is the punch cards from the ICC 1% waybill sample-duplicate cards of which for Official Territory traffic are punched from the ICC data. The TEA researchers, however, punch additional information into these cards. In particular, they show the specific commodity moved by its Uniform Freight Classification Number (whereas the cards, as received from the ICC, show only the commodity groups as set up in the so-called "AAR Red Book"). This refinement is of basic importance, because rates can be made only on specific commodities, not on the broad groupings of commodities as designated in the "Red Book."

The data shown on the punch cards are listed in the table below. Items added by the TEA are indicated by underlining.

With a deck of some 180,000 of these cards in hand, and complete cost calculations for all weights, distances and varieties of equipment-the researchers can fairly quickly, with the aid of a computer, provide almost any summary desired.

One tabulation of individual movements of a specific commodity is shown on page 36. Chart on page 28 shows part of one of the pages from the cost manual.

Information on traffic moving by truck and other forms of transportation is obtained by special surveys-made with the cooperation of shippers by the TEA's own staff. In addition, the Census Bureau has been employed to make some of these "traffic flow" surveys.

To produce useful analyses and summaries from this wealth of material. electronic data processing methods are used. Workhorse for the TEA operation is a Bendix G-15 general purpose digital computer. The computer has an internal magnetic drum memory of 2,176 words (7-digit) and sign, an electric typewriter, a fast paper tape punch and a high-speed photo-electric tape reader. TEA places some programs on punched paper tape. The photo-electric reader can search these tapes in either direction or read at 250 characters per second, simultaneously with computation. The computer's memory can be completely loaded from paper tape in 90 seconds or less, including input checking.

The electric typewriter is used for control, and may be used to directly interrogate and address the computer's memory, to "debug" new programs. and to accomplish manual input and printed output. The tape punch provides output at 17 characters per second.

Other Bendix equipment includes two MTA-2 magnetic tape units and a CA-2 punched card and tabulator coupler. Complementing the computer installation, an IBM 402 accounting machine. or 514 reproducing punch connected to computer buffer storage (the CA-2 unit), can read punch cards and feed the information into the CA-2, or it can tabulate and print, or punch out data from the buffer storage unit. Computer input and output can be in the form of punched cards, punched paper tape or magnetic tape. Magnetic tape is generally used for large amounts of data and for lengthy programs. For example, four reels of magnetic tape hold Manufactures & Miscellaneous carload data for 1959.

Other IBM equipment used includes an 085 collator, 083 sorter, 514 reproducing punch, and 026 keypunch unit. The keypunch unit is used to prepare punch cards from the transcripts received from the ICC.

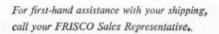
One of the advantages attributed to the computer being used is the ease of programming and operation. According to William Wallace, chief of computer operations, the programming for computer production of the cost reference tables takes only 2-4 hours. "We are one of the first to use Algo [algebra] in programming the G-15 computer, he said. "To calculate figures for some of our reference tables, we ran the

(Continued on page 36)

WAYBILL CARD FORM

Card		,
Columns	Card Heading	Description
2-8	Waybill Serial Number	Serial number assigned by the ICC.
9-13	UFC Code	All waybills are coded as per TEA's coding manuals.
14-15	UFC Sub Code	This code is a further break- down of the UFC number.
20	Special Services	Special service such as refrig- eration, transit, etc.
21-23	AAR Commodity Code	See AAR "Red Book."
28	CL, LCL, AQ	Which type rate used.
29	Further Rate Data	(i.e., Transit, piggyback, etc.)
30	Terminating Month	Jan. through Dec.
31	Terminating Year	Last digit of year.
38	Type of Car	Tank, box, flat, etc.
40-41	Number of Carloads	(i.e., Those covered by the way- bill)
40	Government Shipments	Military, TVA, etc.
42	Type Rate	Class, commodity, exception, etc.
43	Origin Territory	OT, So, WTL, Sw, MP.
44	Destination Territory	Codes are same as origin codes.
45-48	Length of Haul	Short-line railroad miles.
49-52	Weight	In hundredweight.
53-56	Revenue	In whole dollars.
57-62	Origin	State, Economic Area and County.
65-70	Destination	Coded same as origin.
73-75	Origin Railroad	Railroad is coded with AAR accounting numbers.
76-78	Destination Railroad	Coded same as origin railroad.

CARD FORM of the Interstate Commerce Commission 1% waybill sample cards. Underlined items are data added by TEA to information furnished by the ICC.









ANSLOADIA

FOREIGN

TRADE







Ask him to open these doors to the variety of shipping services and privileges he can offer you. He knows the routes, railway geography, favorable junctions and timesaving connections that will give your products the fast, dependable, economical distribution you want. Chances are he already has the answer you need right at his finger tips. If not, he can quickly secure it from Sales headquarters or other departments of the railway.

Your FRISCO Sales Representative in 64 principal cities is eager to acquaint you with the many benefits of FRISCO service. It will be to your advantage to call him when you plan to ship to, from or through the Southeast-Southwest.

SHIP IT ON THE



5,000 MILES SERVING:

MISSOURI . KANSAS . ARKANSAS . OKLAHOMA . TEXAS . TENNESSEE . MISSISSIPPI . ALABAMA . FLORIDA



Which ones will you get?

The answer may well be none at all. Each year, fewer college students take up transportation subjects. Each year the crop of June grads with transportation majors is smaller. Colleges are forced to curtail transportation courses, eliminate some altogether. The result? An alarming shortage of young men and women seeking careers in transportation management.

The fault isn't always with the colleges. Both industry and carrier managements have been notoriously slow to give proper recognition to professional transportation men. College grads who do start in transportation often give up, discouraged, after a year or two and seek greater opportunities elsewhere.

And yet, of all the fields of endeavor open to this year's crop of June grads, transportation and traffic management is among the most challenging. A new interest has become focussed on problems of our national transportation system-problems which demand skill, intelligence and conscience of the first order. Belatedly, industry and carriers are recognizing the critical nature of professional transportation management, are beginning to offer exciting opportunities for management growth and corporate participation.

What's to be done? Reverse the trend away from careers in transportation management. Stimulate participation in college and graduate level courses in transportation.

Encourage research; publish findings. Offer scholarships, grants-inaid for needed courses. Broaden scope of professionally qualifying examinations.

All these are goals of the Transportation Education Fund of the American Society. They identify closely with the interests of every man and woman already in transportation management. They identify closely with goals of national defense and economic security.

Transportation management men and women will secure the Fund's important goals with their personal cash contributions and their encouragement of corporate donations by their managements. Today is not too soon to begin—another June is at hand.

THE TRANSPORTATION EDUCATION FUND

American Society of Traffic and Transportation, Inc.

A Non-Profit Organization-22 West Madison St., Chicago 2, Ill.

Sensational speed-up in mail delivery through new big-package concept!



ANOTHER WORKING IDEA FROM OUR

CREATIVE CREWS

America's resourceful railroad



365 days a year, a unique transfer takes place in La Crosse, Wis.

In the wee hours of the morning, a Milwaukee Road passenger train from Chicago stops at the crossing. In it are two flatcars, each loaded with two huge Flexi-Van vans. In the vans are 1600 to 2400 sacks of mail. Just imagine the work it will be to unload them...but wait!...

The flatcars are shunted to a siding. A man walks up to the vans and starts swinging them around on built-in rollers. A 4-wheeled "bogey" is slid underneath to receive each van's weight. Then the whole assembly is hooked up to a tractor. Presto chango!—It moves away into the night as a tractor semi-trailer! It takes

only 12 minutes to transfer all 4 vans and speed them, with contents unopened and undamaged, directly to four Post Office Sectional Centers in Wisconsin and Minnesota. The carrier is the Milwaukee Motor Transportation Co., a Milwaukee Road subsidiary.

The story of our Creative Crews is a story of courage, as well as ideas, in breaking away from tired old traditions. The Milwaukee Road is the *first* railroad to employ Flexi-Van service for the handling of mail anywhere west of Chicago. Just one more example of the way our Creative Crews work to *improve* the basic services which the railroads perform for America! The Milwaukee Road, Union Station, Chicago 6, Ill.

Route of the Super Dome Hiawathas and the Western "Cities" Fleet

COSTS OF EASTERN DISTRICT RAIL MOVES

AAR	Waybill	UFC	Type	Type		0	rigin			Pestina	tion					Eastern	Revenue
No.	No.	No.	Rate	Car	Territory	State	County	RR	Territory	State	County	RR	Miles	Cwt	Revenue	Cost	Cost
001	5105578	46940	3	1	1	31	5001	620	1	45	5301	620	625	1080	273	285	96
001	5217084	46940	3	1	1	31	5001	620	1	45	5301	620	625	1198	303	297	102
001	5006349	46940	3	1	1	31	5001	620	1	45	5301	620	625	1210	306	298	103
001	5217083	46940	3	1	1	34	5801	050	1	34	5101	50	110	376	104	98	106

COSTS OF RAIL MOVES in Eastern District are tabulated. Moves shown are intra-territory Jan-Apr 1959. Coding is used for machine processing. For example: Type rate 3 is an exception, type car 1 is a box car, state 45 is Virginia.

computer over several weekends. About every eight hours one of the fellows came in to see if everything was running all right. Otherwise the computer ran unattended. While I do most of the programming and handle most of the computer operation, it is easy enough to operate so that some of the other people in our group can handle short or special runs on the computer."

'The programs and sub-routines we have developed for the computer are being systematically accumulated," explained R.T. Smith, assistant director of the research operation, at a meeting of the Railway Systems and Management Association on May 24, "We now find more and more that at least part of a program is already available for use in new problems and so we are getting results faster and faster. Of course, we also are developing increased skill and are making fewer mistakes. Also, we have found that a straight computer application is not always the best. For example, in one job we do, we have found that combination punch card machine and computer processing is more efficient than use of the computer alone. We also use the equipment jointly in our traffic analyses, sorting our cards by length of haul or weight

before calculation. And, of course, we can set up the equipment to sort out and print up for us each move that is handled for revenue which is below estimated cost.

"One real problem lies in the area of estimating the effects of proposed changes. What can reasonably be expected from a change in rates, a change in weights, a change in service? These can only be answered on a probability basis and I suspect that a probability approach is the best way to get a reasonable solution. It is here that a computer will be essential, because the number of variables involved and their inter-relationships require electronic speeds to make the necessary computations in a reasonable time. We have studied this problem a great deal but do not yet have a complete solution.

"A truck-load waybill sample such as the 1% rail waybill sample we now have would be most useful for our type of research, but would not provide the complete answer. Such information on truck movements would still omit exempt movements and private carriage. We have developed some of this information for specific commodities by shipper surveys conducted for us by the Census Bureau, but such surveys

are slow and costly. It would be most helpful to all transportation researchers if the government would go forward with its project to conduct a periodic census of transportation, embracing all types of transportation.

"Another factor is even less tangible but also of great importance. It concerns the probable effect on traffic distribution of changes in pricing and marketing policies of the producing industry. Such changes in the past have had radical and measurable effects on rail shipments so that a study of these cases might throw light on some quantitative factors. In the meantime, any model would have to consider these probabilities as informed guesses at best. We proceed now on the basis of information and methods presently available, expecting that time and experience will improve both."

The first practical application of this systematic approach to railroad ratemaking occurred in connection with rates on paint (RA, Sept. 14, 1959, p. 9). These rates were suspended by the ICC for a year of investigation (in which counsel for the Eastern Railroads was President-Elect Jervis Langdon, Jr., of the Baltimore & Ohio). The rates were, however, eventually approved, and took effect October 15, 1959. Results in attracting tonnage to the railroads have been favorable.

Other rates which have been put into effect following systematic study of the kind set forth here include those on synthetic rubber, sugar, and non-ferrous articles. In practically all cases, the results have been positive. However, all commodities on which rates have been revised remain under continuing scrutiny—since it is not the assumption that all experimental changes will be equally successful. With systematic and continuing analysis, however, the analysts expect that the average performance of the rates in attracting traffic and improving revenues should be steadily improved.



MAJOR COMPUTER parts: main frame (left), typewriter, magnetic tape units.

GENERAL ELECTRIC'S
NEW
DIESEL-ELECTRIC
LOCOMOTIVE

the U25B



GENERAL ELECTRIC



THE U25B IMPROVES HIGH-SPEED SCHEDULES, HAULS MORE FREIGHT PER TRAIN HOUR

The U25B is a locomotive designed to railroaders' requirements and built to help railroads improve their competitive ability.

HIGHEST HORSEPOWER The U25B's 2500-hp input to the generator for traction provides more power than is available in any other U.S. diesel-electric unit.

FEWEST COMPONENTS Only four electric rotating machines are above the platform of the U25B. Locomotives based on older designs have as many as 15.

MOST MODERN DESIGN Imaginative engineering, backed by 69 years of locomotive pioneering, has achieved design simplicity in the U25B. Result: inherently high availability and low cost operation.

Power, reliability and economy are combined in the U25B to set a new standard of motive power: a modern locomotive created to serve in a new era of railroad progress.

THE U25B-POWER FOR A NEW ERA IN HIGH-SPEED SERVICE, AND HIGH TRACTIVE EFFORT FOR HEAVY FREIGHT.



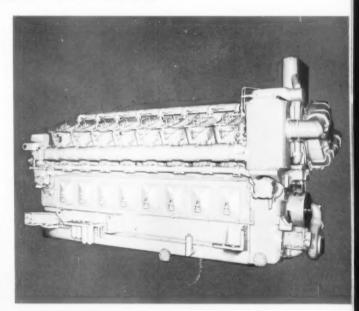
The General Electric Diesel Engine – PROVED IN SERVICE ON RAILROADS THROUGHOUT THE WORLD

The General Electric FDL-16 diesel engine used in the U25B is the result of 20 years of development and millions of miles of road experience. It is a four-cycle turbocharged engine; low fuel consumption has been demonstrated in actual railroad service. Fuel economies have shown 5 to 10% improvement over competitive locomotives.

Only the G-E engine has the "unit cylinder" design. With this one-piece casting, an entire cylinder assembly can be removed from the engine in less than 20 minutes. This leaves the piston completely exposed; rings can be inspected or replaced quickly, and connecting rod bearings are not disturbed.



THE RUGGED CAST IRON PISTON is exposed when the "unit cylinder" is removed. Cylinder, piston and connecting rod may be removed separately or together

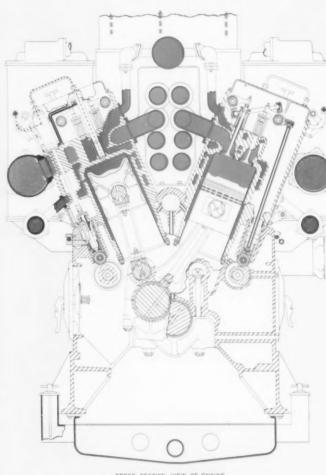


THE U25B ENGINE proved in service and conservatively rated at 2500-hp input to the generator for traction, features high reliability and reduced maintenance.

Larger connecting rod bearings are also made possible by the unit cylinder design. On other engines, the "big end" of the connecting rod must be small enough to pass through the cylinder bore for installation and removal. On the FDL-16, the connecting rod end passes through the cylinder pilot hole, which is much larger than the cylinder bore. The FDL-16 thus has a larger rod bearing area than any competitive engine, as well as a stiffer crank-shaft with more counterweighting.

All these features improve locomotive reliability and reduce engine maintenance.

PROVEN DESIGN, FEWER COMPONENTS



CROSS SECTION VIEW OF ENGINE

FUEL

LUBE OIL

WATER

INTAKE AIR

EXHAUST

The modern design of the General Electric 16cylinder diesel engine is illustrated in the cross section view.

The FDL-16 engine is arranged for optimum cylinder cooling and scavenging. Airintake valves and manifolds are outboard: exhaust valves are inboard, with the exhaust manifolds extending through the center of the vee. This permits essentially straight-through flow of gases in the cylinder, thus improving engine breathing and lowering exhaust temperatures. In contrast, engines with both the intake and exhaust manifolds in the center of the vee have a more restricted flow caused by greater twisting in the gas passages.

Since the intake manifold is connected directly to the cylinder, without an intervening air box, the FDL-16 engine is free from the long-standing problems of competitive engines on which leaking lower liner seals may permit air to enter the crankcase.

Intercoolers increase the engine power output, improve fuel economy and lower engine operating temperatures.

The unit cylinder, the body and head a one-piece casting, is designed for maximum cooling. Water passages are not restricted by head bolts or water passage grommets, as they are in competitive engines with separate heads. Problems usually associated with gasketed cylinder-head joints are completely eliminated on the FDL-16.

The new hydraulically-operated overspeed shutdown system assures maximum protection. It operates by cutting off intake air to prevent the engine "run-away" that might occur when fuel alone is shut off.

All internal oil connections are cast or drilled in the engine main frame. This eliminates the possibility of essential oil lines loosening, breaking, or being left out during maintenance. The lube oil strainer is incorporated

GENERAL & ELECTRIC



. H

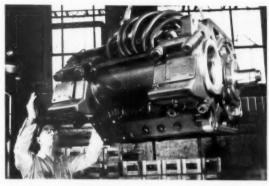
ASSURE RELIABLE UNIT PERFORMANCE

in the engine's free-end cover, thus reducing possible piping leaks and eliminating the chances of oil being contaminated between the strainer and the engine bearings.

Added features which increase accessibility and ease of engine maintenance include: quickly removable lightweight head covers; spring-loaded single-handle explosion - relief crankcase covers; sectional air-intake manifolds; sectional water-intake and discharge headers; and stainless-steel expansion bellows type exhaust manifolds.

The design simplicity and rugged construction of the FDL-16 engine are evident in all components and systems throughout the U25B. The search for simpler, more efficient ways of obtaining more power with less machinery has led to the strengthening of essential components and the elimination of many auxiliary ones. For instance, the use of a single gear-driven equipment blower eliminates individual traction-motor blowers and the associated blower motors, shafting or belts; the generator blower and its drive; cab heater blowers and associated motors; defroster blowers and their motors; as well as their wiring and control.

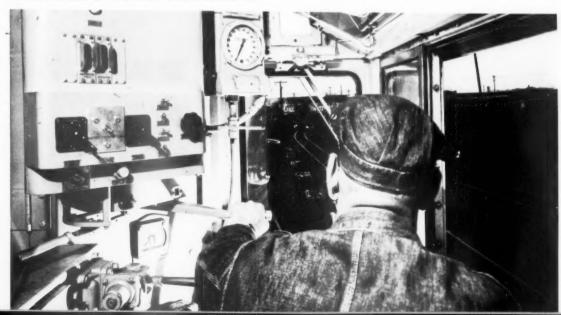
PRECISE CONTROL of higher horsepower for better starting and accelerating of heavy trains is obtained with the new 16-notch throttle... twice the number of notches available on other diesel-electric locomotives.



PERFORMANCE PROVED by billions of freight and passenger miles, the GE-752 traction motor is recognized by railroad men around the world as the standard of reliability.



EASY ACCESSIBILITY of control components, located at platform height in a pressurized, dirt-free compartment, means quicker inspection and maintenance if needed.

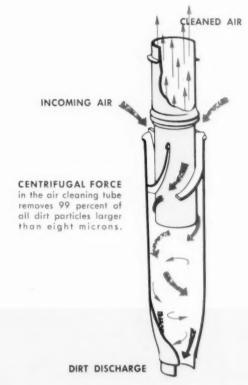


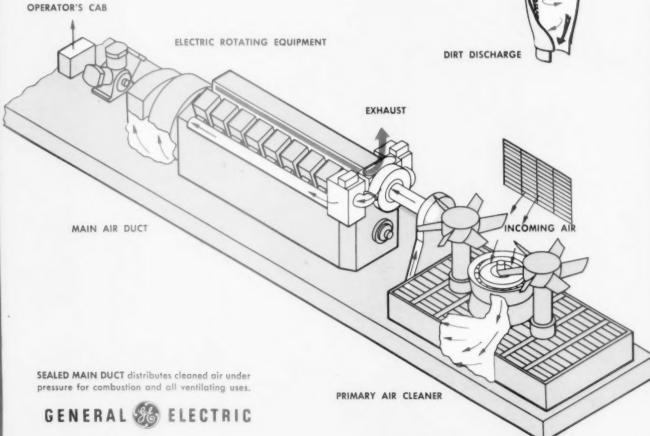


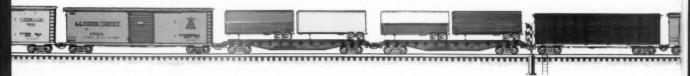
NEW AIR-CLEANING, COOLING SYSTEMS

General Electric's unique air-cleaning system employs permanently-installed cleaning tubes to remove dirt, snow and water from the ventilating and combustion air. Intake air is propelled through the tubes by a gear-driven blower. Centrifugal force removes foreign elements, which are discharged continuously beneath the locomotive. The cleaned air is forced under constant pressure into the main air duct between the center sills and is distributed for cooling the traction motors, generator, auxiliaries, and to the cab heater. In addition, cleaned air pressurizes the control compartment to keep dirt out.

Cooling air discharged from the main generator pressurizes the engine cab, keeping dirt out and the equipment clean. Air for the engine is additionally cleaned through oil-bath air filters. Because most of the dirt has been previously removed, these filters rarely require maintenance, as compared to the frequent and expensive servicing on locomotives not having a primary cleaner. The primary cleaner is self-cleaning and normally requires no maintenance whatever.





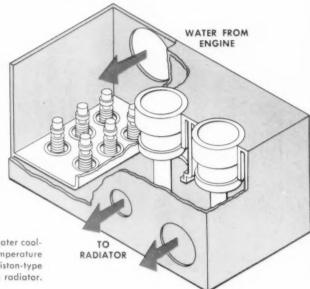


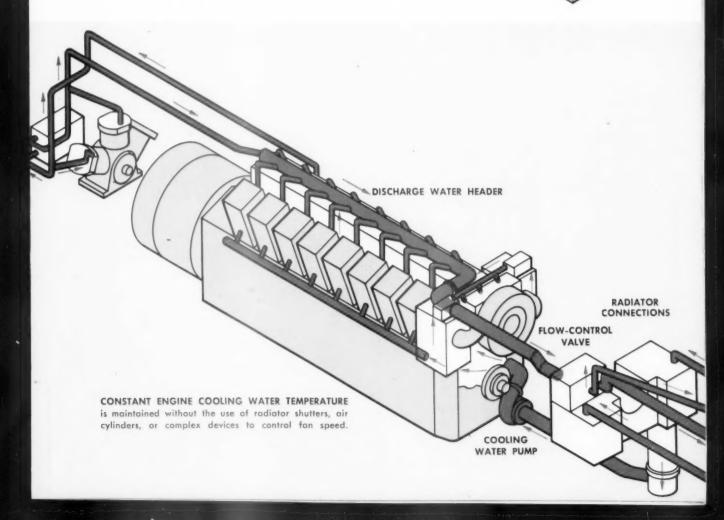
INCREASE LOCOMOTIVE DEPENDABILITY

The U25B water cooling system maintains engine operating temperature within close limits under all load conditions. This is accomplished without the conventional electric or compressed air devices. This means that radiator shutters, fan motors and control, eddy current clutches and extra piping used on other locomotives are completely eliminated.

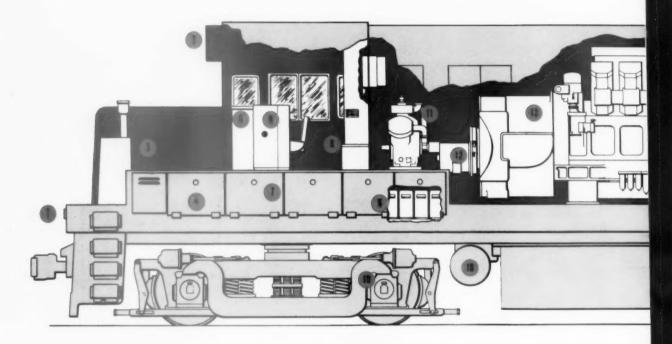
Water temperature is thermostatically controlled by pressure operated snap-action valves. When external cooling is not needed, the full flow of water by-passes the radiator. As more cooling is required, valves regulate the amount of water sent through the radiator to maintain the desired engine water temperature. When flow is cut off, all radiator sections drain completely to avoid freezing.

FLOW-CONTROL VALVE, heart of the U25B engine water cooling system, maintains precise engine water temperature through an assembly of six thermostats and two piston-type valves which regulate the flow of water through the radiator.





ALL NEW-FROM THE RAILS UP



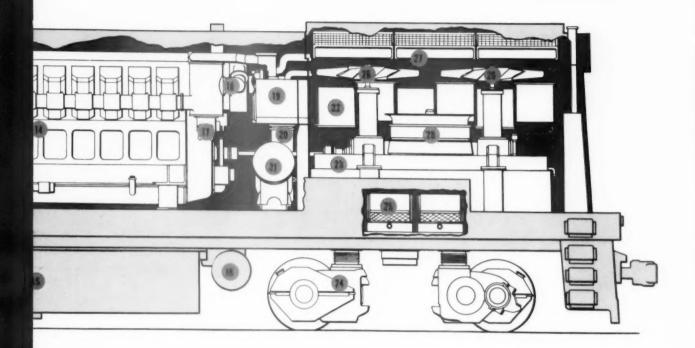
LOCATION OF APPARATUS-MODEL U25B

- 1. Multiple-unit Connectors
- 2. Headlight and Number Boxes
- 3. Hand Brake (Location on Cab)
- 4. Control Equipment Compartment (Left Side)
- 5. Master Controller
- 6. Air Brake Operating Controls
- 7. Air Brake Equipment Compartment (Right Side)
- 8. Cab Heater
- 9. Battery (Right Side)
- 10. Speed Sensing Alternator (One per Axle)
- 11. Air Compressor
- 12. Auxiliary Generator (Left Side) and Exciter (Right Side)
- 13. Traction Generator

- 14. Diesel Engine
- 15. Fuel Tank
- 16. Air Reservoirs
- 17. Lube Oil Strainer
- 18. Turbocharger
- 19. Cooling Water Storage Tank
- 20. Lube Oil Cooler
- 21. Lube Oil Filter
- 22. Dynamic Brake Grids
- 23. Primary Air Cleaner
- 24. Traction Motor
- 25. Engine Air Filter (Both Sides)
- 26. Radiator Fans
- 27. Radiator
- 28. Equipment Blower

GENERAL & ELECTRIC





SPECIFICATIONS

RATINGS

Continuous horsepower to generator for traction	2500 hp
Tractive effort at 30% adhesion	75,000 lb
Maximum locomotive speeds (equipped with sl sion brake, with new or worn 40" wheels):	ip-suppres-

Gears	Ratios					
74:18	4.11					 70 mph
65:18	3.61					 80 mph
64:19	3.37					 90 mph

WEIGHTS

Minimum locomotive (fully loaded)	250,000 II	0
Per axle (fully loaded)	62,500 II	b

MAJOR DIMENSIONS

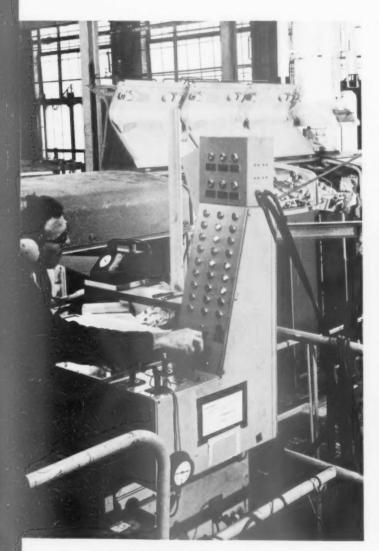
Length inside knuckles	ft 2 i	n.
Height	ft 7 i	n.
Width	6½ i	n.
Gear case clearance	41/2 i	n.
Minimum curve, locomotive alone	150	ft

CAPACITIES

Fuel	. 1	1700	or	2900 gal
Lubricating oil system				275 gal
Cooling water system				220 gal
Sand				32 cu fi

The U25B -- A product of General Electric's program of...

RESEARCH AND DEVELOPMENT

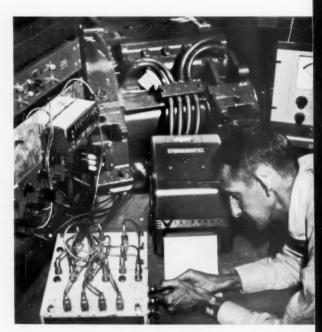


THOROUGH TESTING—component by component, singly and in combination—preceded mainline testing in regular revenue freight service by two U25B prototypes.

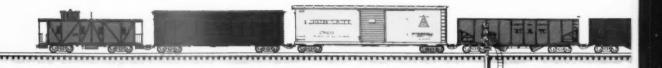
Railroad requirements for more productive, efficient equipment are the guideposts of General Electric's continuing research and development program.

Oriented to railroad needs since 1892, General Electric has constantly innovated, tested and proved new materials, new equipment and new systems to further railway progress.

When you specify General Electric locomotives, you obtain the finest motive power available.



INTENSIVE RESEARCH continually takes place at General Electric's General Engineering Laboratory and Locomotive and Car Equipment Department, employing the most modern research technology and testing facilities.



ORIENTED TO RAILROAD NEEDS

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ARDA Promotes New Revenues

► The Story at a Glance: Emphasis at the 52nd annual meeting of the American Railway Development Association was on new ideas in agricultural. forestry, real estate, industrial and zoning development to bring in more revenue. Participants in the combined agricultural, forestry, land settlement, real estate and industrial sectional meeting that wound up the three-day conference heard a variety of ideas, most of which had a common theme: study the economics of the market; find ways to provide better rail service; meet marketing needs. At the annual dinner, PRR President A. J. Greenough described the kind of thing the development group had in mind. Philadelphia's new Penn Center project, he said, shows what can be done in "imaginative and business-oriented development of railroad real estate and air rights."

"As an engineer trained to create things," Pennsylvania Railroad President Greenough told the "Family Dinner" of the American Railway Development Association, "I am very much interested in the industrial, agricultural, real estate and other development work that you people do."

The Penn Center development, which Mr. Greenough called "Philadelphia's version of New York's Rockefeller Center and Pittsburgh's Golden Triangle," is a good example of imaginative development of railroad property, Mr. Greenough said. "It is growing up on the fourteen acres of prime centercity real estate that was occupied by our famous old Broad Street Station and the approaches to it," Mr. Greenough added. He noted that it includes restaurants and shops in its commercial development both above the ground and in the below-street concourse that is gradually being developed.

"On this property," Mr. Greenough said, "there have risen in the past few years, five major buildings, and work is about to begin on two more." One of the buildings, Mr. Greenough pointed out, is the Sheraton Hotel, the site of the ARDA meeting, and "the first new hotel in Philadelphia in a generation or more. Three of the others are brand-new, modern-design office buildings. . . . The fifth is a 432-unit cooperative apartment building, where people will live in push-button comfort within walking distance of downtown Philadelphia and its offices, stores, cultural attractions and entertainment."

New buildings on the way, Mr. Greenough said, are "another apart-

ment house and a new office building for International Business Machines. It was fortunate for the railroad, Mr. Greenough said, that PRR had "such a big and desirable piece of real estate for development right in the heart of Philadelphia. It was fortunate for Philadelphia, too, because the city had been inching toward the midtown blight that threatens so many American cities today. Already the impetus of Penn Center is starting to upgrade the surrounding area, too: Right 'next door' to it Bell Telephone of Pennsylvania has started construction of a new headquarters building scheduled to cost over \$15,000,000, and an even larger apartment house is about to go up across the street. . . .

"So all of this, as you see, is urban renewal on a grand scale, and on a free-enterprise, business-oriented basis that will make it pay its own way and more. I don't mean that remark as side-swipe at government-financed urban renewal," Mr. Greenough added. "Far from it. Our city has a great deal of that going on down around Independence Hall, and welcome it is. But I do think that when we railroads, acting as free-enterprise businesses, help to stimulate the renaissance of cities we helped to develop in the first place, we should not shrink from letting our part in the job be known.

\$12 Million From Rents

"I might add that my company does not shrink either from accepting the financial fruits of these and other activities by our real estate and industrial development people," Mr. Greenough continued. "On the Pennsy last year, our rental from property leased to others was over \$12 million. More than a million of this was from parking lots, mostly around passenger stations-and nearly three-and-a-half million was from concessions at stations and on trains. At our present recession-level operating ratio of around 90%, it would take something like \$120 million in freight and passenger revenues to match that return.

"These were rentals," Mr. Greenough said, "Last year our people also sold more than \$11 million worth of industrial and other properties—and that money came in mighty handy, too. So did the traffic from the 189 new industries and 129 plant expansions our industrial development department helped to locate on our lines during the same period."

On the subject of the use of air rights, Mr. Greenough added: "One of the most challenging parcels of air rights anywhere in the world is at our Pennsylvania Station in New York. . . . The area comprises nearly nine acres of mid-Manhattan property that is crying out to be used for something in addition to a passenger station. We have finished a detailed engineering study covering the use of air rights, and we are now discussing, with a highly competent developer, detailed plans for a group of modern buildings. These would, of course, be above street level: all railroad facilities would be below grade. With our own patrons in mind, there would, of course, be proper ventilation and elevators and escalators. The combination of subway and Long Island Rail Road and Pennsy passenger service makes this an ideal location. and I think you are going to see big things happen there before too long.

New ARDA Officers

At the business portion of its meeting ARDA elected a slate of officers for the coming year. New president is L. B. Horton, commissioner, agricultural and mineral development department, Chicago, Milwaukee, St. Paul & Pacific Railroad at Chicago. Mr. Horton succeeds retiring president J. W. Ewalt, assistant to vice president—real estate, Pennsylvania Railroad, New York.

New first vice president is K. C. Lewis, manager, real estate and industrial development, Delaware & Hudson Railroad, Albany, N.Y. New second vice president is F. V. Fisher, industrial and land commissioner, Elgin, Joliet & Eastern Ry., Joliet, Illinois. New secretary-treasurer is Edward Jones, agricultural agent, Illinois Central Railroad, Yorksville, Tenn.

The first portion of the meeting met in two sections: the agricultural, forestry and land settlement sectional meeting and the combined real estate and industrial sectional meeting.

The agricultural, forestry and land settlement group heard the county agricultural agent of Lancaster County, Pa. describe the farm situation at the "production level"; Dr. Byron T. Shaw of the Agricultural Research Service, USDA, describe "The Stakes that Producers and Consumers Have in Agricultural Research"; H. D. Williamson, American Stores Co. describe "New Horizons in Marketing and Distributing



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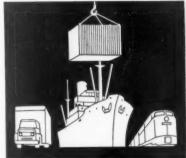


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Produce"; Lloyd E. Partain, manager, trade and industrial relations, Curtis Publishing Co., on "The Agricultural Situation," and John Kirch, research forester, Achem Products, on "New Forestry Ideas to Get More Revenue."

The combined real estate and industrial sectional meeting heard a panel under the co-chairmanship of Forrest Jackson, industrial commissioner, C&O, Huntington, W. Va., and F. D. Halter, assistant general land and tax agent, Erie-Lackawanna, Cleveland, discuss "What Sales Procedures Have Proved Successful to Insure Use of Property for Industrial Purposes?" Also, this group heard Raymond Bowers, of Lewis C. Bowers & Son, Princeton, N.J., describe "Financing Industries Through Sources Other than Railway Funds,"

New Ideas-More Revenue

For the combined agricultural, forestry, land settlement, real estate and industrial sectional meeting on the final day, the general theme was set as "What's New: New Ideas to Get More Revenue." E. N. Duncan, director, industrial and agricultural development, Great Northern Railway, St. Paul, opened the discussion with a statement of the problem.

Compare 1960 with 1950 or 1940, Mr. Duncan said. The railroads are operating on the same traffic base today as ten years ago, and about the same as twenty years ago. With this failure to increase volume, he said, "you have only one way to meet increased costs—by increased rates. And increased rates drive away business."

Some railroad theorists, Mr. Duncan said, have maintained that with the increase in gross national productover 25% in ten years-railroads would make out all right if they could only hold their own. "We've found out that it's not so," Mr. Duncan asserted. Other rail economists in the past have maintained that erosion of rail traffic would slow down and stop because highways were too crowded and waterways and pipelines were limited to certain territories, Mr. Duncan added. "But they built new highways and pipelines." The hopeful conclusions of the '50's that rail business would automatically get better have had to discarded, Mr. Duncan said. "Since then, on the GN at least, there has been new pressure to try and get back traffic that has eroded away."

Simply getting an industry to locate on-line is no longer the only answer, either, Mr. Duncan commented. He described an increasing tendency to talk in terms of distribution rather than

transportation. Distribution can mean an emphasis on widely scattered branch plants, with railroads bringing in raw material and trucks distributing the product locally.

"We are amazed," Mr. Duncan said, "to see the differences in the commodities we're handling. We've had a steady loss of the high-rated traffic. In the last three years, though, we've made some remarkable progress the other way." Citing piggybacking of new automobiles and the more recent auto rack cars, Mr. Duncan noted, "We're getting the special equipment and the rates we need to win back this commodity. It's a good sign for other commodities. We can tell by the strength of the attack by [James R.] Hoffa [president of the International Brotherhood of Teamsters] that we're good enough to cause concern."

To go out and get industry, Mr. Duncan added, "You have to know a lot about the resources in your territory; you have to know the procedures for developing it." Given this information, he concluded, the railroad industry is far from the "dormant position" some people have assigned it.

A paper on "New Agricultural Ideas to Get More Revenue," prepared by Joe W. Jarvis, supervisor of agricultural development, Union Pacific, was read by W. D. Soulier, UP agricultural agent. Agricultural business, like any other business, the paper said, can be improved in three ways: by economic studies, better rail service and favorable legislation. If there is a sizable non-rail movement, study the situation to find out why and what would have to be done to get the business on the rails.

Specifically, Mr. Jarvis's paper said, this means, in any given district, making a survey to determine the agricultural potential of the district; forecastine production accurately enough to arrange in advance for the cars needed; working with traffic departments, where necessary, to get rates that will be attractive to shippers; assisting small farmers to set up volume movements through cooperative shipments; keeping fully informed of USDA programs.

Improving rail service, the paper said, could be a matter of encouraging shipment from larger centers; providing reefer trailers to capture business now moving by truck; or new devices, such as collapsible bins for bulk handling of fruit and vegetables or canvas bins for seed. In legislation, the paper said, there is a need to tell the railroad story—particularly that railroads could lower their charges if they were able to compete without restriction—to more rural people.

P. R. Farlow, general agricultural

and forestry agent, Illinois Central, spoke on "New Forestry Ideas to Get More Revenue." There are no hidden tricks in it, Mr. Farlow said. "Just look for the things that are needed along your railroad and encourage them." An example Mr. Farlow mentioned, fire prevention in timber lands, is particularly important in the South, where 90% of timber damage from this source is from man-made fires.

Another effective device, Mr. Farlow said, had been the development of a mechanical tree-planter by the IC. Before the machine was available, a planter weighed two tons and cost \$900. The IC planter weighs 375 lb (which means it can be used with a farm tractor) and costs \$295. "In the last 16 years," Mr. Farlow said, "three to three-and-one-half million acres of idle wood land have gone back in production."

New Industrial Ideas

F. B. Stratton, director of industrial development and real estate, Western Pacific, described "New Industrial Ideas to Get More Revenue." Estimating traffic from a new industry accurately is important, Mr. Stratton said, adding that most estimates tend to be too high. New financing methods should be explored, Mr. Stratton said, since financing may make the difference between a plant locating on-line or somewhere else. "Having land is useful to an in-dustrial agent," Mr. Stratton said, "but it costs a lot of money. We've found in some cases it almost doubles the price of land to hold it." A solution, Mr. Stratton suggested, is to have a local community buy the land and hold it for industrial purposes.

A paper on "New Real Estate Ideas to Get More Revenue" prepared by Beeber Gross, director of purchases and real estate, Reading Co., was read for Mr. Gross by F. V. Flynn, the road's assistant real estate agent. Four points have to be considered, the paper said: "What is available for sale or lease?, What type user?, What revenue?, What procedure to follow?" Railroads own a lot of property not now used for railroad purposes, the paper pointed out. Much of this land can be useful to someone else, and on a sale or lease basis, can bring in revenues.

A paper on "New Zoning Ideas to Get More Revenue," prepared by T. T. Martin, vice president industrial development, GM&O, was read for Mr. Martin by E. L. Beardsley, director of industrial development, D&RGW. "The only sure way to protect industrial land," the paper said, "is to put it in the proper zone and purchase it by industrial-minded groups."



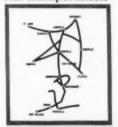
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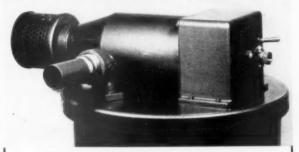
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CAR STATUS AND CONTROL

CAR NO.	DATE IN	DATE OUT	X*		PR	ODUC	T	es.	MTY	LDNG	LD	WEIGHT	OK	HOLD	CUST.	OTHER	ROUTE
43061	6 - 15			A	В	С	D	E									
43762	6-23			A	В	С	D	E				560#					
43840	6-19	6-30		A	8	С	D	E							231		64
44106	6-12			A	В	c	D	E									
44115	6-6			A	В	С	D	E						BAD			
44283	6-27	7-4		A	В	C	D	E								BULK TERM.	17

*No Lading Assigned

HOW THE CONTROL PANEL operates is illustrated by this sketch, which shows that:

Car 43061 arrived 6/15; product B was assigned to it; car is loaded and OK to move.

Car 43762 arrived 6/23; product E was assigned to it, car is loaded, but has been overloaded and is not OK for shipment.

Car 43840 arrived 6/19; was loaded with product C, and departed 6/30, destined to customer designated by number 231, via route number 64.

Car 44106 arrived 6/12; product E was assigned to it, and car is now being loaded.

Car 44115 arrived 6/6; no product assigned; car being held empty waiting repairs.

Car 44283 arrived 6/27; was loaded with product D, and departed 7/4, destined to a bulk terminal via route number 17.

Data shown in the square areas is indicated by movable translucent signals. Rectangular spaces are opaque signals on which data is written.

Visual Panel Finds Cars Fast

By M. B. Ketter*

When an owner or operator of a rail car fleet needs prompt information on the status of each of his units, a visual control panel can be materially helpful. A panel board, tailored to individual requirements, yields instant data on the disposition of each car, so long as the board is systematically marked.

Too often, location and status of cars is ascertained only by checking files or shuffling cards. Some records of a permanent nature must, of course, be maintained, but daily handling of car record files can be extremely cumbersome and time wasting. This is particularly true when individuals demand immediate statistical information, such as the number of carloads of commodity "X" on hand.

A visual panel can be remarkably flexible. It tells the viewer at a glance the location of each car, the number of empty cars on hand, the commodities to be loaded into each car, and many other details. The range of useful intelligence which a visual board can reflect is limited only by the imaginations of those who use it.

The chief component of a visual control board is a metal or wood panel. Various types of stationary and movable strips and signals comprise the balance

of the equipment. The signals, ordinarily made of plastic, may be transparent, tinted translucent, or opaque. Often the latter type are made to be written on. They are easily erased or wiped clean.

The panel arrangement depends on the variety of current data which must be readily at hand. To illustrate the diversity of data which a visual board can offer, assume that the following factual information is wanted constantly on each car: date car was shipped or received; whether on or off plant; empty, loading or loaded; empty, no product assigned to it for loading; bad order. hold for repairs; customer, routing, destination. With the knowledge of what information is needed, the traffic department, or control group should then carefully draw on paper a control board plan. The number of cars in the fleet determines the capacity of the panel. The size of the board is related to the extent of data it must carry.

To convey the data listed in the example above, here is how a control board may be set up. A plastic tube which contains a paper strip in a channel on its front and can accommodate over-riding plastic signals, is prepared identically for each car. A paper strip is inserted in the tube on the left margin for the car number. To the immediate right of the number is placed a strip numbered from one through 31, or dates may be marked on signals as

shown in the accompanying sketch. Proceeding to the right, the balance of the space is occupied by a strip which may carry symbols or blank spaces. Each function of the visual board is set up, in other words, in columnar form. To simplify reading, each column should have an appropriate heading, such as "empty," "loaded," "customer," and so on.

Initially, the status of each car is established by examining current files, so that, with an overriding translucent signal over the figure 22, a typical tube may show that car 67890 arrived on that date. A similar signal shows that commodity "Y" has been assigned to this car. A third signal indicates that the car has been loaded, but an opaque signal, under the "hold" heading, has written on it "bad order," which tells the viewer that this car cannot move until repaired.

Opaque signals should be used under those headings which encompass numerous possible items. Some examples are names of customers, routings, and destinations. A number code should be used in place of names, routes, and destinations, because it is easier to read a few digits from a distance than the small writing which must be resorted to for lack of room on opaque signals. Also, a number code keeps car dispositions confidential when the area where the (Continued on page 69)

^{*}Mr. Ketter is branch plant traffic manager for a large chemical company.

TV Looks at the Railroads

Jazzy music and Chaplinesque film clips do not a documentary makeand neither did NBC, so far as its White Paper No. 6, "Railroads: End of the Line?" is concerned.

As an ex-newspaperman turned rail writer (and sometimes TV critic). I tuned in NBC's offering hoping for the best and expecting something less. Hope, obviously overmatched, died shortly after the first commercial. But every mournful expectation survived and flourished.

It's a bit difficult to know where to begin in commenting on the inadequacies of the presentation NBC put on. The temptation is strong to shrug off the whole thing as the typical mass-media approach to a situation where superficiality lends itself to drama and thoroughness might lose the audience.

NBC itself apparently threw up its corporate hands at the idea of doing a full and complete rundown of the "railroad problem." Railroad men tell me their first contacts did involve the whole problem. Later, they say, the word was passed that the program would concentrate on passenger aspects of the business-but not to the exclusion of all else.

Certainly the hour-long end product didn't live up to its preview billing as a program which would trace "railroads' part in America's development, the decline of railroads and their present critical situation." What filtered through the picture tube was largely a survey of urban mass transit problems, as Narrator Chet Huntley blandly conceded late

in the show. (So why not call it "Cities: End of the Line?")

But even in the narrow realm of commuter service and passenger service generally. NBC failed to bring it off. The network showed the public what it already knew-that trains are coming off, that stations are being closed, that the 6:05 is hardly ever on time. But the network never really told the public why.

Oh, there were mentions-C&NW Chairman Ben W. Heineman got in a few good licks in pointing out that North Western's commuter renaissance required and won the cooperation of the state regulatory agency, for example. And there were rather shadowy mentions of subsidy, high taxation, high cost stemming from poor utilization (in commuter service) of men and equipment. There were George Alpert, John Barriger and Alfred Perlman petitioning for equal treatment.

There were also sparkling opportunities for commuters, union members and a union officer to vent their spleen on rail management. Perhaps the crowning touch, though, was interviews with passengers in the lounge car of a New York-Chicago streamliner-which, judging from the televised comments, would have been totally empty had not weather conditions grounded the jets that night.

I came to work the morning after NBC's White Paper with some trepidation-fearing, I guess, that the industry's pride had sunk so low that railroaders would just be grateful for being "granted" an hour of

prime-time TV and "no matter what they say about us."

For once, I'm pleased to be wrong. The people I've talked with had the same let-down feeling-the same teeth-gnashing frustration at seeing opportunity strangled by superficial-

Perhaps, so far as these TV spectaculars are concerned, the real plight of the railroads is that their real problems, their basic ills-unfair taxation, inequitable and burdensome regulation, political apathy, subsidization of competitors, the whole bit -can't be dramatized in a way that will keep the public from switching to Garry Moore or Alcoa Presents.

Perhaps it would take more imagination to translate these points into words and pictures that would be meaningful and engrossing to an entertainment-oriented TV audience. But performance of a sincere public service usually does require a bit of extra effort.

As Lewis Mumford noted on the White Paper, if things don't change we may have to face up to re-inventing railroad systems in another 10 years. Such a meaningful statement might have been a springboard to delve into the "why" of the problems and some of the "how" for the solutions. But White Paper seldom got off the springboard-and when it did, it walked on the water, scarcely dipping below the surface.

The field is still clear for the railroad story to be told.

-Gus Welty

Air Subsidies Called 'Sad Delusion

Lavish, lopsided government spending may result in the nationalization of all means of commercial travel. Samuel W. Seeman, passenger manager for the Pennsylvania's Pittsburgh Region, told the Altoona (Pa.) Traffic

Mr. Seeman noted that federal contributions to the air age total more than \$5.5 billion and state and local governments have spent another \$2.5 billion on airline facilities.

By conservative estimate, he said, air fares would have to be at least double their present levels to cover the actual cost of furnishing airline service-in which case air travel would be only a fraction of what it is.

"Or looking at it in reverse." he

added, "if rail passenger service were operated under the same conditions of government largesse, our fares would be much lower, our terminals would be shinier and more modern. our equipment would be much newer. our advertising would be far more extensive and of course our passengers would be more numerous.'

Mr. Seeman said the theory that the airlines would need public support only during their infancy turned out to be

a "sad delusion."

"Not only have air passengers repaid none of the high public investment in air facilities and operations, the annual cost to the public is going up right along with the increases in air travel." he asserted.

"The federal government is going to spend over \$75 million for airports this year. The amount . . . has increased every year since World War II.

"It will spend \$549 million on the federal airways system compared to \$458 million last year. The amount has increased every year since 1925.

"The direct subsidy to airlines will be over \$67 million this year compared with \$54 million in 1960. The amount has increased every year since

Mr. Seeman said railroads are prepared to develop intercity passenger service "superior to anything yet seen." But they can do so, he declared, only if "honest economic competition" is brought back.

Senate Sidetracks Rate Hearing

Rules of the Senate prevented its Commerce Committee from receiving the railroad industry's opposition presentation and thus carrying out the planned schedule of its first series of nearings on proposed legislation to emasculate the 1958 Transportation Act's rate-freedom provision. When this issue went to press, no date had been set for receiving the presentation which will be made by President-Elect Jervis Langdon, Jr., of the Baltimore & Ohio and J. E. Gilliland of the Frisco.

They had been scheduled to appear May 19 (RA, May 22, p. 9), but the Senate on that day convened three hours earlier than usual (at 9 a.m.) to debate the aid-to-education bill. When a session is on, no committee may meet unless it obtains unanimous consent of the Senate. This was denied, so the hearing had to be recessed. Resumption is subject to the call of Committee Chairman Magnuson.

Prior to the recess, there were four days of hearings. The Freight Forwarders Institute and the Railway Labor Executives' Association then made opposition presentations, while presentations in support of the proposed legislation were made by trucker interests, including American Trucking Associations, and the International Brotherhood of Teamsters whose president, James R. Hoffa, has been an aggressive advocate of the proposed legislation.

The bill in issue is S.1197, introduced by Senator Bartlett of Alaska for himself and four other members of the Commerce Committee—Senators Cotton of New Hampshire, Hartke of Indiana, Monroney of Oklahoma, and Yarborough of Texas. Because of IBT President Hoffa's campaign in support of the bill, it has been referred to as "the Hoffa Bill."

Senator Bartlett has denied that Mr. Hoffa asked him to introduce the bill in the Senate. And IBT Counsel Sidney Zagri answered charges that it is "Hoffa-inspired" by citing a joint statement by ATA and water-carrier interests which asserted that "the management side in both the motor carrier and water carrier industries are the primary advocates of the legislation."

While Mr. Zagri was making his presentation, Senator Yarborough, one of the bill's sponsors, made a statement saving the "railroad lobby" had called him a "captive of the Teamsters." He was glad to meet his captor, the senator added.

He went on to describe the campaign in opposition to the bill as "astounding propaganda turned loose by the railroad lobby." In closing, he asserted that he has "no prejudice against the railroads—their taxes help support schools."

The hearings closed with an expression by Committee Chairman Magnuson of his view that "we must have some ground rules on destructive competition." Mr. Zagri agreed. The chairman also said that the 1958 act "originated with the railroads," and S.1197 "with the other modes." He called this "only natural," adding: "There's noth-

ing wrong in bringing this up once in a while."

The following day, Senator Magnuson made a speech to the Washington Chapter of the National Defense Transportation Association, saying the decline of common carriers poses "as much a threat to freedom as would a default in arms." Asserting that common carriers in all modes of transportation are "vital and necessary," the senator sounded again his call for "some ground rules so that the whole common carrier system can thrive with the growth of the country, rather than go down."

'Allocation of Business' Hit

"The people of this country must soon take the heavy hand of regulation off the backs of the railroads, or face up to inevitable government ownership of the industry," C&EI President David O. Mathews told shareholders at the road's annual meeting.

Mr. Mathews called attention to the "shock" created by recent revelations of price-fixing and allocation of business in the electrical equipment supply industry. But, he pointed out, much the same situation holds in the transportation industry—and there it has the purported sanction of the law. In short, the practice which has been condemned in the electrical equipment business is the rule of the day in transportation.

C&EI's president also noted a recent comment by ICC Chairman Everett Hutchinson to the effect that "without rate regulation you would have chaos. Destructive competition must be prevented." Mr. Mathews' question: "Why this concern with destructive competition in the transportation business, when we have no such concern in the electrical business or in any other business? Why doesn't Congress call Commissioner Hutchinson and others holding a similar view and attempt to ascertain why they feel destructive competition is so much to be feared in the transportation business and not in other equally competitive fields?"

If Congress would make this inquiry, he concluded, it would find there is no fundamental difference between transportation and other business—and "so-called destructive competition is no more dangerous" in transportation than it is in the electrical supply field.

Freight-Dock Standards Sought

Work on standards for dimensions of rail and motor freight docks has been inaugurated through the sectional committee procedures of the American Standards Association. Sectional committee MH8, including repesentatives of seven associations and organizations concerned with movement of material and equipment at freight docks, has undertaken to standardize freight dock dimensions.

The project is administratively sponsored by the American Material Handling Society and will be supervised by Richard K. Hopkins, national chairman of the standards committee of AMHS, who has been newly appointed as sectional committee chairman.

Tentative plans call for increasing

the number of organizations and associations represented on the ASA sectional committee. Three subcommittees are: railroad dock requirements (chairman, W.C. Humphreys, NYC, representing the American Railway Engineering Association); motor freight dock requirements, (chairman, Richard K. Hopkins of the Newark Lamp Plant, General Electric Co.); material handling equipment requirements (chairman, Russell Hastings, Clark Equipment Co., representing the Industrial Truck Association).

Another ASA sectional committee, MH6, is working on standardization of pictorial markings applied to shipping containers of non-dangerous goods to indicate special handling requirements.

NYC, C&O, B&O to Study Coordination

New York Central President A. E. Perlman disclosed last week an NYC-C&O-B&O agreement to make studies of possible savings that could be achieved from a three-way coordination of facilities short of merger.

But he said that NYC's agreement to participate in the coordination studies did not mean it would drop or weaken its opposition to C&O control of B&O -"although I learn that it is being used

this way.'

"Let me make it clear," Mr. Perlman told stockholders at Albany, "that the limited studies proposed by [C&O President Walter J.] Tuohy have nothing whatever to do with whether C&O should have the power to control B&O. Control of B&O by C&O is not in the public interest."

He noted that such coordination studies are common and that others are under way between NYC and other roads. He said he met Mr. Tuohy recently for lunch, at which time Mr. Tuohy asked for a three-way study of areas of possible railroad coordination. Mr. Perlman said NYC's acceptance of the proposal was a "friendly gesture" made "in good faith."

Earlier, Mr. Perlman, answering a reporter's question, had ruled out the possibility of resuming NYC-Pennsylvania merger talks. Such a merger might be in the PRR's interest but it definitely "would not be in the public interest," he said. (PRR Chairman J. M. Symes commented recently that Pennsylvania was open to any merger talks-including reopened talks with NYC—that might be in its interest.)

NYC is not opposed to mergers as such, Mr. Perlman noted, but does not feel that all mergers that would benefit private interests are in the public interest. "Even though it hurt New York Central when the PRR empire got the Virginian," Mr. Perlman said, "it was

in the public interest."

Announcing NYC's plans to install 53 new commuter cars for delivery beginning in the spring of 1962 (see page 71) Mr. Perlman noted that this would give the road modern-design. lightweight MU cars for about 80% of its New York commuter service.

Mr. Perlman told stockholders NYC's passenger deficit in 1960 was at its "lowest point since 1939, with the exception, of course, of the war years. Our passenger deficit last year amounted to \$17.75 million."

As an example of Central's "new concept of business and diversified interests," Mr. Perlman said, "the road has created a new, wholly-owned subsidiary company. This new firm is the Cleveland Technical Center, Inc. The purpose of this new company is to market and sell commercially, on a competitive basis, the new products and services developed by the Central's scientists at our Cleveland Technical Research Center.

"One of the first products that will be handled by Cleveland Technical Center is a water cooler for locomotives that is far less expensive than ones in use currently in diesels on most

railroads," Mr. Perlman said.

IC Silent on Merger Partner

Illinois Central President Wayne A. Johnston, admitting that "we are looking into the possibility of merger with several railroads," declined to confirm last week's press reports that an Illinois Central-Missouri Pacific merger study was nearing completion.

Mr. Johnston was content to "let the press conjecture. It is premature to say

more at this time."

At St. Louis, Missouri Pacific spokesmen also had no comment regarding the speculation that IC-MP merger negotiations would soon get under way.

An alliance with IC would give MP an entry into Chicago and could create an 18,000-mile rail network stretching from the Great Lakes to the Gulf of Mexico and reaching out from St. Louis into Nebraska, Kansas, Colorado, Oklahoma, Arkansas and Texas.

The two roads last year produced a combined net income of nearly \$25 million on total operating revenues of

approximately \$650 million.

Missouri Pacific's most recent entry into the merger picture involved negotiations with C&EI, another Chicago based carrier. C&EI directors rejected the MP stock exchange offer which would have involved certain modifications in C&EI senior debt indentures (RA, Jan. 2, p. 32).

Illinois Central recently acquired the Peabody Short Line Railroad and is asking the Interstate Commerce Commission to condition creation of the Seaboard Coast Line Railroad on sale of Atlantic Coast Line's controlling interest in L&N to IC.



Trucks Travel Fast by Rail

Part of white-topped trainload of 600 International Harvester Scouts is shown being assembled at Ft. Wayne, Ind., for movement to IH dealers in Arizona and California. The 50-car Wabash special left Ft. Wayne at 7:30 p.m., May 5 and arrived in Kansas City the following afternoon. Beyond Kansas City the Scouts moved in regularly scheduled freight service to Phoenix, Oakland and Los Angeles. Dealers in Phoenix received eight carloads on Tuesday morning, May 9; Oakland and Los Angeles dealerships each received 21 carloads the following morning.



Longest object ever moved by a U.S. railroad

And a pair of them, at that—two refinery towers, 229 and 228 feet long, respectively. Built by Wyatt Industries, Inc., Houston, and American Bridge Division of U.S. Steel, Orange, Texas, they were delivered in tandem to Sinclair-Koppers Chemical Company in Houston. Southern Pacific executed the record-breaking move, carrying each rigid

tower on a cradle of six flat cars that were carefully guided past utility poles and around tricky turns.

Moving extra long, high, wide or heavy shipments is a Southern Pacific specialty. That's why shippers and receivers in the Golden Empire call us *first*, whenever their freight needs special handling ... and the extra care the S. P. always gives.



Southern Pacific

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TRAINS • TRUCKS • PIGGYBACK • PIPELINES

RAILROADING AFTER HOURS WITH JIM LYNE

TRANSPORTATION SCIENCE—I've just got hold of a couple of lusty vol-

umes reporting what went on at that Wood's Hole Transportation Conference held last August by the National Academy of Sciences. These reports are obtainable from the Academy, in Washington, D.C. One volume is called "U.S. Transportation—Resources, Performance and Problems," and is made up of the statements of representatives of each of the various modes of transportation. AAR Economist Burt Behling spoke for the railroads, and his statement alone makes that volume a valuable reference work.

The other book is entitled "Transportation Design Considerations." Besides a number of essays by scientists at a rather theoretical level (some of them pretty competent. too), this volume has a forthright and discerning piece by Downing Jenks and another by O. M. Solandt (research VP of the CN). I had not seen either paper before, and it would have been too bad to have missed them.

JENKS ON PASSENGERS—Downing Jenks asserted

that the passenger business, including the commuter business, can be made to pay, and he opposed subsidies in any form. He emphasized the need for more education in transportation and told of his experience at Northwestern University where "we had students teach the teachers, so the teachers can teach more students—all on a graduate level, or above."

GOVT. RR RESEARCH?—Dr. Solandt dwelt on the inadequacy of railroad research, declaring that really intensive progress in this vital area is limited to those concerns with big defense contracts—one company, for example, spends \$100 million in a single year for this purpose. He believes it would be entirely legitimate for government to make substantial expenditures for railroad research (matching those it has made for aviation, shipping and highways); and to relieve what he considers to be a "desperate situation."

FORMULA FOR VICTORY—On the question raised here (May 1 issue) on whether operating department supervisors (from superintendent on down) are able to give shippers the prompt attention that satisfactory service requires—a railroad officer who prefers not to be identified lays emphasis on the tough job a superintendent has with a 1.000-mile division to manage. Plenty of attention from superintendents might well solve customers' service problems—but who'll do the superintendent's assigned job while he's giving customers the desired attention?

It's a tough question to answer—but the questioner has the attitude which is the best answer to all problems. Despite all difficulties, he says: "Railroading is the most fascinating industry in America today—politics and all. And the challenge is continuing. I'm glad I'm a railroad man."

to the Railroad Industry from Harry F. Ortlip* HARRY F. ORTLIP president, Harry F. Ortlip Company specialists in electrical engineering and construction for the railroad industry, inconstruction for the railroad industry, invites you to accept a copy of our brochure vites you to accept a copy of our brochure

* SEE "WHO'S WHO IN RAILROADING"

Boats Move Cheaper by Rail

Union Pacific and International Yacht Sales, Inc., of Detroit, have jointly worked out a new technique for securing large sailboats to rail cars for shipment. Key to the new method is a heavy bolt positioned through the sailboat's ballast keel. This bolt is then secured by U-bolts passing through the boat cradle and the car floor, which effectively fas-



tens the keel to the car. According to International Yacht Sales, "This is the first time a sailboat of this size \[\text{34-ft-} 8-in. length; six tons displacement] has been shipped in this manner, and it opens up a new and better way of doing it. The advantages are many, one of them being that the boat is well protected from dirt and the ravages of nature. Box-car deliveries are faster, too, and require no special routing by the railroads, nor policing, as the locked car prevents vandalism. Further, the shipping cost, including both loading and unloading, is far less than trucking, with savings of up to 15 cents per mile, depending on the distance." Securing the keel directly to the car eliminates extensive and costly bracings, and also "undue and harmful stresses on the hull itself." International Yacht Sales reports. An end-opening box car is used for these shipments.



KEEP it clean

Steel-Corr doorway protection assures clean, dry lading . . . a $fresh\ start$ every trip.

Steel-Corr doors are always kept in protected storage, used once and disposed of—eliminating any chance of contamination.

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Steel-Corr - the new material with years of experience.

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How 'J' Uses Two-Way Radio in

The Story at a Glance: A new two-way radio system has helped the Elgin, Joliet & Eastern tighten supervision of its track forces. Also, the road has been able to minimize operating delays that are caused by various types of emergencies.

The system, installed and maintained by Motorola, Inc., is on the "J's" Gary division. It satisfies a long-felt need for instantaneous communication between the division's track supervisors and their foremen.

The Elgin, Joliet & Eastern is using radio for quick control of emergencies and for better deployment of its labor forces.

Maintenance forces of the EJ&E's Gary division recently received their own two-way radio communication system. As a result, the officers not only know where a gang is working and what it is doing, but they now can get in immediate contact with its foreman. If more urgent work needs attention, the foreman can be directed immediately to send a number of men, or his whole gang, to a different location. On the other hand, if unforeseen work conditions arise, or a machine breaks down, the foreman can inform his superior without delay.

The EJ&E had been studying the practicability of using radio for its M/W forces for years. Ever since 1955, when the American Railway Engineering Association Yards and Terminals committee presented a report on the use of radio for expediting yard-switching operations, EJ&E maintenance officers have been convinced that radio communication was a necessary tool for its track. bridge and building and signal forces.

The need for instantaneous communication between supervisors and their foremen applied especially to the road's Gary division. As A. C. Johnson, the "J's" chief engineer, explains it: "The division serves heavy industries in the Gary, Hammond, Whiting and South Chicago areas. Our largest business is with several steel plants in this area. In the steel-making industry, empty and loaded cars must flow in and out of the mills continuously. If they don't, some operations could be delayed and we would hear about it.

"At the Gary Mill division," he adds, "we have about 210 miles of track and about 1,700 switches to maintain, and it is extremely important that we keep these switches operable. On the South Chicago division we have approximately 800 more switches and about 100

miles of track. In the Kirk-Calumet district, which includes Whiting and Hammond, we have approximately 900 switches and 115 miles of track. With so many switches and so much trackage emergencies are bound to occur.

"Some of these emergencies are peculiar to a railroad serving a steel industry. For example, ingots or molds may fall off a car and derail it, tying up traffic until crews can get there to rerail the car and fix the track.

"Snow storms present another aggravating problem. Although we have used propane-gas, electric and pot-type switch heaters for years, a snow fall of six inches or more, when combined with high winds, normally necessitates hasty recruitment of a considerable number of extra laborers."

These conditions and problems convinced the railroad that radio would be a useful tool in the hands of its M/W forces.

There was some doubt, however, whether radio signals would be heard with clarity because of the many steel buildings, furnaces, cars and ingots through which the tracks were threaded.

Partial System Tested First

Working with engineers of Motorola, Inc., a trial installation of a partial radio system was made. When reception proved highly satisfactory, the EJ&E contracted with Motorola for the installation and maintenance of a complete system for the Gary division.

The system is comprised of 2 base stations, 5 remote-control points, 17 two-way mobile sets installed on 15 trucks and 2 automobiles, and 29 Handie-Talkie portable sets. This set-up permits practically instantaneous communication between every supervisor on the division and each of his field foremen. The system operates on a frequency of 161.550 megacycles. Each set is assigned its own call number.

One base station is at Kirk yard and the other at South Chicago. Each consists of a transmitter-receiver with an antenna placed on existing floodlight towers, 90 ft and 50 ft high, respectively. Antennae of a high-gain type were used because they give greater transmitting and receiving distances for a given amount of power.

The base station at Kirk yard operates with 60-watt power. Excellent results, up to 25 miles for the mobile sets and up to 6 miles for the Handie-Talkie sets, are obtained. The base station at South Chicago operates with 25-

watt power and gives reliable communications over the desired area. The antenna at South Chicago has a "side-oftower" mounting to give a directional effect toward Gary. Air dielectric coaxial cable is used between the transmitter-receiver and the antenna to reduce loss of power.

The base station at Kirk yard has a stand-by unit, which can be cut in by throwing a switch, to keep the station operative in event of failure. The base station at South Chicago is comprised of an AAR plug-in-type radio which may be be easily replaced for routine maintenance.

The South Chicago base station has one remote-control point. It is in service 24 hr per day. The Kirk Yard base-station control point is in the garage of the supervisor of scales and work equipment. Ordinarily, the latter station is in service 16 hr per day. It may be kept in operation for longer periods.

Four remote-control consoles transmit through the Kirk yard base station. In the call system used these points are identified by base numbers. Base No. 1 is on the desk in the roadmaster's office. Base No. 2 is the one in the garage of the supervisor of scales and work equipment. Base No. 3 is in the track supervisor's office at the Gary plant. Base No. 4 is in the track supervisor's office at Kirk yard. Base No. 5, assigned to the South Chicago station, is in the track supervisor's office there.

Each of the consoles has an intercom feature which permits communication between stations without going on the air. Each console is connected with the base station by underground cable, except the one to Gary mill, which uses wires leased from the telephone company. Each has a button which, when pressed, seizes control of the transmitter. However, the control points at the base stations can override the dispatch points.

The 17 mobile units, called Motrac auto radios, broadcast with 25-watt power. Two types of these units were used: One is a 12-volt type and the other a 6/12-volt type, depending upon the battery used in the vehicle. The 6/12-volt type will be used with the 6-volt-battery vehicles until the latter are replaced by vehicles having 12-volt batteries. Depending upon operating conditions, some of the trucks are equipped with an overdrive on the generator drive to deliver the full-charging rate while the truck motors are idling.

Each mobile unit has a "Power Voice" (transistorized) speaker which gives a high output. The advantage of

M/W Work

this speaker for M/W use is that it can be removed from the set and hung outside the window. Hence, the men can hear calls when away from their vehicles.

For the most part, the Handie-Talkie sets are assigned to foremen. However, other sets have been assigned to the assistant roadmaster, track supervisors, B&B supervisor, welding supervisor, assistant supervisor of work equipment and signal supervisor for their use while away from their offices.

Each Handie-Talkie has a built-in speaker. This enables the employee using a Handie-Talkie to be called without requiring that he hold the handset to his ear at all times. These sets have dry-cell battery packs delivering 1 watt of power. These batteries are said to function well for 8 to 10 days, after which they must be replaced.

Indoctrination for Employees

The M/W radio system was placed in operation February 1, 1961. The road, in cooperation with Motorola, had previously conducted an indoctrination course for all employees who would be involved in the use of the system. The course covered such matters as proper identification procedure, operating requirements as governed by rules of the Federal Communications Commission, and the operation of the equipment. Each man attending the course received a copy of general and operating rules for railroad radio.

Today, practically all EJ&E communication between foremen and supervisors is carried out by radio. At the beginning of the work day, each foreman reports to his supervisor, telling him how many men he is working, and obtains his complete work assignments for that day. Advice on changes in work requirements made during the work period, whether initiated by supervisors or foremen, is transmitted by radio. Work assignments are handled, in the same manner, for welding outfits, service men, and T&T and signal forces.

In accordance with the contract, Motorola maintains the radio system. This is done through a maintainer franchised by Motorola. Whenever a transistor or radio tube fails, the maintainer is called and replacements are made promptly. The whole system is inspected annually.

The M/W radio system was designed by B. Anderhous, EJ&E's communication engineer, and W. K. Waltz, signal engineer, under the direction of A. C. Johnson, chief engineer, in cooperation with Motorola engineers.

Quick Communication



ROADMASTER R. V. Dangremond's control point, designated Base No. 1, has an intercom feature which permits him to communicate with other control points without using the radio.

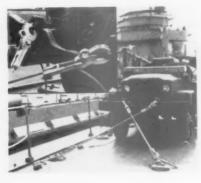


AUTO UNITS permit supervisors, while away from their office base station, to be in constant touch with their field foremen.



FOREMEN, using their Handie-Talkie sets, can communicate with their supervisors whenever necessary.

NEW PRODUCTS REPORT







All-Purpose Hook

The Release-A-Matic hook can be released while loaded, permitting the operator to stand clear and eliminating hazards of unhooking live loads. Positive lock prevents opening, except when intentionally released by the pull ring. The hook will fit practically any type of fitting. It has been approved by the U.S. Navy not only for shipboard but also for amphibious use. Merrill Brothers, Dept. RA, Artic Street, Maspeth, N.Y.

Load Retarder

Nichol load retarder (shown in open position) becomes a permanent part of the car with the lower jaw welded to the underframe. The hinged upper jaw, when forced flush with the door, deforms pre-threaded steel strapping to conform with corrugations in the cast steel guide plates. Strapping may be looped about the lading and tightened. A rubber cushion between the jaws absorbs impact tension. Klasing Hand Brake Co., Dept. RA, Joliet, Ill.

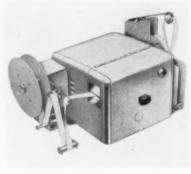
Multiplex Equipment

Ten channel units with lower sideband frequencies between 4 and 44 kc can be combined by means of translators into a 170-channel system. The method of transmission is frequency division, single sideband, suppressed carrier. Channel band width is 300 to 3,000 cps. A service channel, 0-4 kc, is available. The units swing out for maintenance. General Dynamics/Electronics, Dept. RA, 100 Carlson Road, Rochester 3, N.Y.



Fire Extinguisher

The pressurized Kidde Kompact is a 2½-lb dry chemical fire extinguisher, which, according to the manufacturer, is approved by the ICC for use on trucks and railroad cars. Its UL rating is 4-B:C—equal to eight 1-qt carbon tets. It is 14 in. high, 3 in. in diameter, and, charged, weighs 5 lb. A fast-re-lease, clamping-band bracket permits freeing the extinguisher with the pull of a finger. Walter Kidde & Co., Dept. RA, 675 Main St., Belleville 9, N.J.



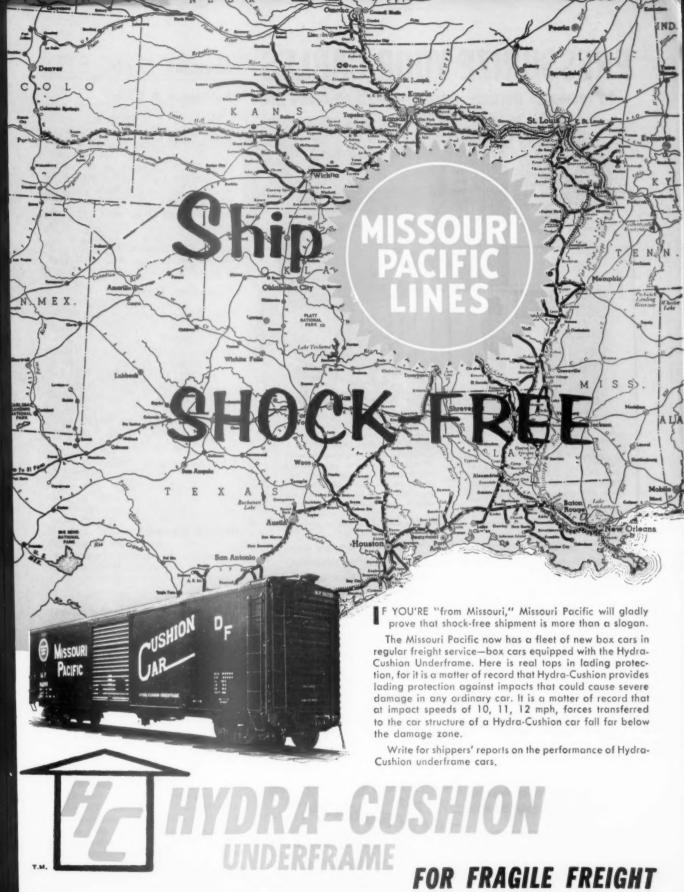
Parallel Wire Tape Punch

A new multi-magnet tape punch is designed to receive parallel wire input. The model 28 LARP will serve as an electro-mechanically-operated slave unit and can provide programmed storage. It operates at 20 characters per second and is available for 5-, 6-, 7- or 8-level operation. In data collection systems, the LARP records information from many sources in one master tape. Teletype Corp., Dept. SP-14-RA, 5555 Touhy Ave., Skokie, Ill.



Emergency Lighting

The 100-amp-hr Model E Lightguard is capable of illuminating 10,000 to 25,000 sq ft continuously for 3 to 8 hr or more. It operates automatically and instantaneously when normal power fails, and recharges automatically in about 12 hr from complete discharge. The unit is designed for permanent connection to 115-volt, 60-cyle power. Exide Industrial Marketing Div., Electric Storage Battery Co., Rising Sun and Adams Aves., Philadelphia 20.



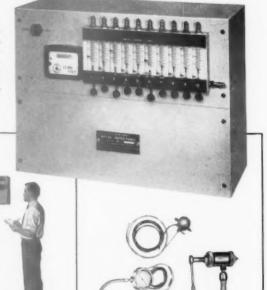
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-to minimize service outage-lengthen cable life

Metering Panel of the PUREGAS Continuous Feed Pressure System. From a convenient central location it monitors, measures and distributes the flow of dry air to the cables



Air Dryer of the PUREGAS system, It compresses and pumps air to a tank for storage cooling, preparatory to dehumidification and delivery to cables. Air Dryers and Metering Panels are praducts of Puregas Equipment Corporation.

GENERAL MACHINE PRODUCTS accessories. Pressure Testing Contactors monifor pressure and detect leaks. Pressure Testing Gauges measure pressure precisely. Pressure Guns make pressure plugs. These and associated tools are made by General Machine Products Co.

Pressurize your communication cables with dry air supplied through PUREGAS equipment. It is a practical, well proved way to minimize cable failure, trim upkeep costs and lengthen cable life. PUREGAS equipment feeds a continuous supply of dry air to cables to keep moisture from reaching conductors, whether cables are old or new.

Use GENERAL MACHINE PRODUCTS accessories to quickly pinpoint location of sheath breaks

or cracks so that repairs can be made before

service failure.

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Shippers' Guide

Baltimore & Ohio

. . . Extends 'TOFCEE' Service Has extended its "TOFCEE" service to Columbus, Ohio, and Connersville, Ind. Service will be provided initially from the New York City and Philadelphia areas to Columbus. In the case of Connersville, initial service will be to Houston, Tex., and between Connersville and New York, Philadelphia, Baltimore, and Washington. In both cases, service will be extended later to other points where "TOFCEE" service is available. Columbus and Connersville are the twentieth and twenty-first cities in B&O's "TOFCEE" network.

Canadian National

. . . Faster Westbound Freight Has lopped off six hours from freight schedules on westbound movement from Montreal, thus providing fifthmorning delivery in Vancouver instead of late afternoon delivery. Third-morning deliveries will be available at Saskatoon instead of afternoon deliveries. Freight train No. 401, previously leaving Montreal at 1:30 a.m., now leaves at 2:00 a.m. and reaches Vancouver at 5:10 a.m. on the fifth day instead of 11:00 a.m., local standard time.

Chesapeake & Ohio

. . LCL Change

Has inaugurated direct LCL car. Richmond, Va., to Louisville, Ky., to operate on Tuesdays and Fridays.

Illinois Central

. . New Piggyback Ramps Completed construction of piggyback ramps at Greenville, Meridian and Laurel, Miss.

Susquehanna

. . Plan II Piggyback Rates Has published Plan II piggyback rates with the Pennsylvania in PRR's Tariff ICC 3656 between NYS&W stations in New Jersey and points in Alabama, Delaware, Illinois, Indiana, Kentucky, Louisiana, Michigan, Missouri, New York, Ohio, Pennsylvania, Tennessee, and West Virginia.

Container Transport

... Joint Program
Container Transport International, Inc., and Universal Carloading and Distributing Co., have agreed to initiate a joint program for through-bill-of-lading movements of general cargo between the U.S. and Europe. The joint service will offer shippers one throughcharge for transportation and allied services (including containerization of cargo), on a single, convenient document. Containers, as well as overseas facilities, will be provided by CTI.

TRAFFIC POLL

(Continued from page 15)

ing or overheating and these additional costs must be reflected in the lowered rail rates."

The freight rate is a major consideration in distribution costs writes A. S. Daviau, traffic manager, The Mennen Co., Morristown, N. J. "The spread in costs of packaging and handling by the various modes is only about eight cents in our company," he says. "Therefore, the mode of transportation which is more costly to us in this area need only make slight adjustments to be competitive. . ."

"(The freight rate) is a major cost factor in most electrical product lines," writes C. D. Duffy, general traffic manager, Westinghouse Electric Corp., Pittsburgh, Pa., "ignoring highly sophisticated electronic equipment."

It varies sharply, he says, "by product line and by distance of shipments from normally about 70% down to 30% for most inter-city transportation."

"Both inbound and outbound freight rates are an important factor in plant location," points out L. F. Van Kleeck, traffic manager, Brown Co., Berlin, N. H., "but labor, transportation facilities, and nearness to the marketing areas are important, especially in this era of speed."

"I would say the freight rate is 85% of the total delivered cost, with the other 15% accruing almost altogether to loading cost, writes E. M. Burk, traffic manager, Wyatt Industries, Inc., Houston, Tex., in discussing his particular product.

VISUAL PANEL

(Continued from page 57)

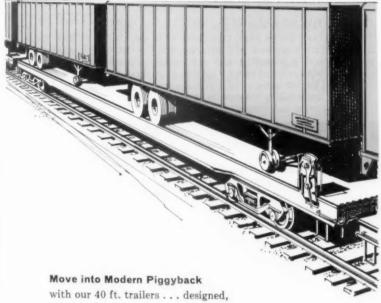
board is located is open to outside visitors.

It is obviously essential that a visual control panel be kept up to date. It should be posted at least once daily. Yard checks, bills of lading, empty carbills, loading reports, and other pertinent documents should be directed to one person selected to maintain the panel.

That person then becomes a key figure in providing car status reports. Authority may also be vested in him to control movements of the various units. Under his control all data will be timely as well as economically derived.

Visual control panels, while not inexpensive, pay for themselves quickly in time saved through centralized control. In the long run, panels are quite economical; they are the means of furnishing car data in a moment. And since they cannot wear out, the savings continue indefinitely.

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with our 40 ft. trailers . . . designed, built and proven for the job!

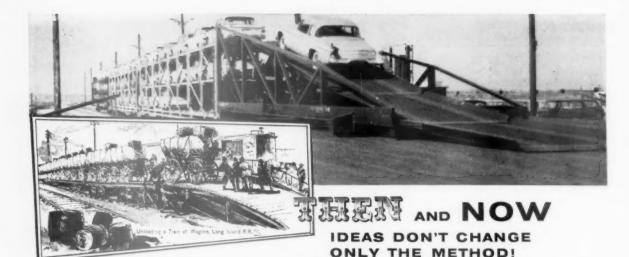
These modern hi-cube trailers offer maximum volume and utilization.

Their reinforced construction takes the punishment of piggyback movement.

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Current users of BUCK unloaders are reporting outstanding success in revenue gains with a minimum investment.

As an example, one shipment of 8 tri-level cars from the Toledo-Detroit area to the east coast will offer sufficient revenue to offset the cost of a BUCK manual model unloader.

Repeat orders attest further to the value of installing automobile handling equipment by BUCK.

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Market Outlook

Carloadings Rise 3.1% Above Previous Week's

Loadings of revenue freight in the week ended May 20 totaled 568,457 cars, the Association of American Railroads announced on May 25. This was an increase of 17,052 cars, or 3.1%, compared with the previous week; a decrease of 68,396 cars, or 10.7%, compared with the corresponding week last year; and a decrease of 117.695 cars, or 17.2%, compared with the equivalent 1959

Loadings of revenue freight for the week ended May 13 totaled 551,405 cars; the summary, compiled by the Car Service Division. AAR, follows:

REVENUE F	REIGHT CA	RLOADING	S
For the week	ended Sat	urday, May	13
District Eastern Allegheny Pocahontas Southern Northwestern Central Western Southwestern	1961 79,425 88,011 47,205 106,837 74,480 110,243 45,204	1960 93,284 111,937 54,030 117,300 102,482 111,427 49,545	1959 103,190 132,337 56,328 119,137 110,316 119,892 51,796
Total Western Districts	229,927	263,454	282,004
Total All Roads	551,405	640,005	692,996
Commodities: Grain and grain products Livestock Coal Coke Forest Products Ore Merchandise I.c.I. Miscellaneous	49,848 4,586 93,766 6,421 36,870 32,539 29,186 298,189	44,144 4,855 106,352 8,675 38,706 71,771 36,395 329,107	48,368 5,270 109,688 11,495 40,689 79,807 41,728 355,951
May 13 6 April 29 April 22 April 15	551,405 543,544 544,356 533,435 522,386	640,005 641,800 643,328 625,410 622,663	692,996 678,996 676,194 649,319 634,848

Cumulative total, 19 weeks . . 9,584,240 11,350,702 11,508,538

PIGGYBACK CARLOADINGS.

-U. S. piggyback loadings for the week ended May 13 totaled 12,065 cars, compared with 11,297 for the corresponding 1960 week. Loadings for 1961 up to May 13 totaled 203,-706 cars, compared with 199,137 for the corresponding period of 1960.

IN CANADA.—Carloadings for the seven-day period ended May 7 totaled 72,620 cars, compared with 70,608 for the previous nine-day period, according to the Dominion Bureau of Statistics.

		Revenue Cars Loaded	Rec'd from Connections
	r Canada	72.620	24.666
	1960		27,981
Cumulati	ve Totals		
May 7	. 1961	1,074,041	448,963
Almy 7	1060	1 201 731	532 615

New Equipment

FREIGHT-TRAIN CARS

- ► Louisville & Nashville.—Directors authorized expenditure of \$6,781,163 for purchase of an additional 590 roller bearing-equipped hopper cars from Pullman-Standard. Order includes 550 70-ton hoppers to be built at the P-S plant in Bessemer, Ala., and 40 90-ton aluminum-body covered hoppers to be built at the firm's plant in Butler, Pa. Delivery will begin in a few weeks.
- ► Maine Central.—Ordered 50 50-ft, 50-ton pulpwood cars from Thrall Car Manufacturing Co. for delivery at the rate of 15 weekly beginning in mid-summer. Cost is estimated at more than \$500,000.
- North American Car.—Ordered 129 Lo-Dek flat cars from Pullman-Standard for NITX car pool. Cars will be equipped with tri-level auto racks by Whitehead & Kales. NITX will assign 79 89-ft cars to the Milwaukee Road and 50 87-ft cars to the New York Central. Deliveries are scheduled for June and July.

PASSENGER-TRAIN CARS

- ► Metropolitan Transit Authority of Boston.—Requested bids for 92 high-speed rapid-transit cars to replace all 135 cars now in service on its Cambridge-Dorchester line (RA, May 15, p. 7). Deliveries. to begin in July 1962, are to be completed by March 1963. MTA car replacement program follows authorization of \$5-million bond issue by Massachusetts legislature. Balance of necessary funds will come from MTA revolving fund.
- ▶ New York Central.—Is acquiring 53 new commuter cars from Pullman-Standard. NYC will purchase 26 cars outright at a cost of \$4,005,396. The Port of New York Authority (under a commuter-aid plan that calls for further orders in the near future) will purchase the remaining 27 cars at a cost of \$4,159,616, and will lease them to NYC for an initial period of 25 years.

LOCOMOTIVES

► Reading.—Ordered 10 900-hp switchers from EMD for delivery in July, August and September. Four will be equipped with multipleunit controls. Reading is also rebuilding six Alco locomotives at its own shops. Work includes installation of new engines purchased from Alco.

SPECIAL

► Sudan.—Invites bids for supply of 1,200 steel axle journals for railroad cars (deadline June 15); and 16,000 tons of 75-lb rail (deadline June 21). Bid documents are available from the Bureau of Foreign Commerce, Trade Development Division, U. S. Department of Commerce, Washington 25, D. C.

New Facilities

► Frisco.—Authorized \$185,000 for construction of piggyback facilities at Rosedale, Kans., and is spending an estimated \$808,000 on current construction projects which include a new freight house at (Continued on following page)

Market Outlook CONTINUED

Memphis, Tenn., rip yard facilities at Tulsa, Okla., and a warehouse and office to serve National Carloading Co. at Oklahoma City.

► Louisville & Nashville.—Will construct a one-spot freight-car repair facility at Sibert Yard near Mobile, Ala., at an estimated cost of \$240,990. System will include car repair shed, new machine tools, tracks and roadway, stores building, office and locker rooms. L&N has similar systems at yards in Nashville, Birmingham, Chattanooga, Covington, Evansville and Pensacola.

► Rio Grande,—Ordered 60 64/12 Motrac radio units from Motorola, for installation in locomotives and cabooses.

Orders & Deliveries

► Orders Increase.—Orders were placed in April for 2,040 freight cars, compared with 1,796 in March. April 1960 orders totaled 5,540. Deliveries in April totaled 2,933, compared with 3,874 in March and 5,569 in April 1960. The backlog of cars on order and undelivered as of May 1, 1961, was 13,658, compared with 15,801 on April 1 and 41,003 on May 1, 1960.

TYPE Box—Plain Flat Gondola	ORDERED April, 1961 895 455	DELIVERED April, 1961 761 204 393	UNDELIVERED May 1, 1961 3,472 1,159 2,328
Hopper	0	480	3,868
Covered Hopper	160	306	660
Refrigerator	350	528	1,072
Tank	179	258	792
Caboose	0	1	209
Other	1	2	98
TOTAL	2,040	2,933	13,653
Car Builders	824	1,156	3,896
Railroad Shops	1,216	1,777	9,762

Purchases & Inventories

Two Months' Purchases Down 13.1%.—Purchases by domestic railroads of fuel, material and supplies in this year's first two months were \$32,398,000, or 13.1%, lower than in the comparable 1960 period. Purchase and inventory estimates in following tables were prepared by Railway Age.

PURCHASES*	February 1961	Two Months 1961	Two Months 1960	
	(000)	(000)	(000)	
Rail	\$ 1,699	\$ 5,552	\$ 15,404	
Crossties	3,472	8,048	8,540	
Other Material	67,918	140,540	155,405	
Fuel	28,649	59,941	67,130	
Total *Subject to revision.	\$101,738	\$214,081	\$246,479	

INVENTORIES**	February 1, 1961	February 1, 1960
Rail	(000) \$ 48.903	(000) \$ 47,501
	80.941	pa
Crossties		71,313
Other Material	377,181	401,252
Scrap	24,149	25,866
Fuel	21,933	21,996
Total	\$553,107	\$567,928

*Subject to revision.

†All total inventory figures taken from ICC statement M-125 for month indicated.

Administration Renews Pledge To Help Common Carriers

The Kennedy Administration has reiterated its determination to provide the leadership needed to revitalize common carriers.

"Our nation has produced an abundance of resources and ideas which can lead the common carrier transportation industries out of their current problems toward greater things," Clarence D. Martin, Jr., undersecretary of commerce for transportation, told a San Francisco audience May 19. "President Kennedy and his Administration want to provide the leadership for this goal of more progressive transportation."

Mr. Martin's analysis of common carrier problems and his suggested remedies largely followed the recommendations which he outlined earlier before a U. S. Chamber of Commerce meeting in Washington (RA, May 8, p. 29). The undersecretary spoke in San Francisco under the auspices of the Bay Area Chapter of the National Defense Transportation Association.

He said the rate-freedom provision of the 1958 Transportation Act—now under fire from truckers and water carriers—is "sound insofar as it gives the public the benefit of competitive rates," But he said a further standard is needed "to prevent the selective elimination of certain competitive common carrier services through ruthless rate policies."

He also called for amending Section 22 of the Interstate Commerce Act to eliminate "the favored position of government in transportation" and for modification of exemptions from common carrier regulation which favor "limited sectors of our economy."

To help the railroads find improvement capital, he said, the Administration is considering two kinds of incentives: (1) longer depreciation lives for railroad equipment, and (2) the creation of a construction reserve fund.

As for mergers, he had this to say: "Railroad consolidation and the ultimate structure of the industry are problems of long-range consideration. The Executive Branch, the Congress and the Interstate Commerce Commission should begin the consideration of this long-range problem, looking forward to specific actions in the not-too-distant future."

Dividends Declared

CHICAGO GREAT WESTERN.—common, 25¢, payable July 7 to holders of record June 16.

ELMIRA & WILLIAMSPORT.—preferred, \$1.62, semiannual, payable July 3 to holders of record June 20.

GUIF, MOBILE & OHIO.—common, 37½¢, quarterly, payable June 12 to holders of record May 26; \$5 preferred, \$1.25, quarterly, payable Dec. 18 to holders of record Nov. 24.

C&O Builds 100-mph Inspection Car

Chesapeake & Ohio has a new electronically equipped car capable of making track inspections at speeds up to 100 mph. The car, rebuilt from an old coach at Huntington shops, is the only one of its kind in the U.S., C&O reports.

A rolling laboratory, C&O's new inspection car is equipped with a gyroscope that makes it possible to measure the quality of the track. The car will be used primarily to measure rail joints, track surface, elevation on curves and track alinement. From the measurements obtained, it will be possible to determine where maintenance is needed to provide a smoother and faster roadbed.

M. I. Dunn, senior vice president in charge of operations, said: "The new inspection car represents the latest advance in C&O's pioneering efforts, begun in 1937, to inspect and measure quality of railroad track in practical fashion. The car is especially designed to yield accurate measure-

ments of track quality characteristics by passage of the car over the track at all speeds attained by trains on the railroad.

"Development of this inspection car is directed towards providing efficient and economic quality control of all track on the C&O." Mr. Dunn said. "Analysis of the track inspection aids substantially in planning maintenance activities, both on a short-term and long-term basis."

The inspection car, painted canary yellow, is numbered RI-2. It will usually be operated as the last car on fast passenger trains, when it goes into regular service later this spring. Plans are to operate it before the start of programmed track maintenance and again in the fall to see how track quality has been improved by the maintenance program. The spring inspection is also expected to provide information on winter damage to the track.

Electronic and electrical equipment

in the car was installed by Measurement Control Devices, a subsidiary of Schaevitz Engineering Co., of Pennsauken, N.J. A two-axis gyroscope, similar to those used in missiles, was installed under the rear of the car. As the car rolls at high speeds, the gyroscope receives the impact of the wheels on the rails and transfers impulses to a recording console inside the car.

To avoid inaccuracies possible with pen-and-ink methods, recording is done optically on light-sensitive paper. Mileposts and other landmarks are noted by an operator with a push-button device that marks the chart paper. Milepost numbers are then written on the chart to locate specific track sections or joints in as precise a way as possible.

In addition to electronic devices, the car has facilities for visual observation of track. It can thus be used by local and system officers making inspection trips.

Expenditures Seen Off One-Third

This year's gross capital expenditures of Class I line-haul railroads may be more than one-third under last year's. That's the prospect on the basis of estimates submitted to the ICC, but some informed railroad forecasters are more optimistic, pointing out that the estimates were made some time ago when the business outlook was "much more depressing."

Estimates received by the ICC from 101 of the 107 Class I line-haul rail-roads show that the reporting roads expect their 1961 gross capital expenditures to total only \$556,868,695, a decrease of 36.8% below the \$881,203,-870 which they spent in 1960. The six roads which submitted no estimates for 1961 spent \$37,896,703 last year.

Thus, total 1960 outlays of all 107 roads amounted to \$919,099,573, up more than 12% from 1959's \$818,002,000 and more than 24% from 1958's \$738,038,000. On the other hand, the 1957 expenditures totaled \$1,394,705,000, and the billion-dollar mark was also topped in five other years of the 1950-1960 period.

If the 1961 expenditures turn out to be somewhere around \$580 million, as the estimates indicate, they would be lowest since the \$562 million reported for 1946, the first post-war year, when materials were in short supply, If this 1946 figure is adjusted to

reflect inflation, it becomes the equivalent of 965 million 1961 dollars.

Lowest capital expenditures on record are 1933's \$104 million, and next is 1935's \$188 million. Converted to the equivalent of 1961 dollars, the latter becomes \$530 million, only \$50 million less than this year's prospective outlays.

Breakdown of the 1961 estimates by territories indicates that expenditures by railroads in the Southern Region will take the biggest relative drop from last year—44.7%. Expenditures by roads in the Eastern and Western districts are expected to be off 42.7% and 35.2% respectively. Pocahontas-Region roads plan to increase their outlays 1.1%.

How expenditures for this year's first half will be divided between road and equipment is indicated in the table, which also has comparable figures for 1960's first half.

Actual and estimated gross capital expenditures of Class I railroads, first six months of 1960 and 1961

NUMBER				PERCENTAGE DISTRIBUTION EQUIP-		
PERIOD	ROADS	ROAD	EQUIPMENT	TOTAL	ROAD	MENT
Actual:						
1st half 1960	111	\$129,156,429	\$316,791,369	\$445,947,798	29.0	71.0
1st half 1960*	105	123,981,472	302,045,460	426,026,932	29.1	70.9
Estimated:						
1st quarter 1961	101	49,074,323	115,970,562	165,044,885	29.7	70.3
2nd quarter 196	1 101	64,510,047	100,550,377	165,060,424	39.1	60.9
1st half 1961†	101	113,584,370	216,520,939	330,105,309	34.4	65.6
Percent of increase	4					
1st half 1961	101					
VS.						
1st half 1960	105	d8.4	d28.3	d22.5	i	

^{*} Excludes figures for 6 roads which did not furnish 1961 estimates.

d Decrease

Reduction from 105 to 101 due to mergers.

PEOPLE IN THE NEWS

ALTON & SOUTHERN.-C. E. Partlow, general manager, Point Comfort & Northern, Lolita, Tex., also named general manager, Rockdole, Sandow & Southern, succeeding A. A. Goehler, appointed commercial agent, Alton & Southern.

BURLINGTON.—I. C. Ethington, acting general manager Lines East, Chicago, appointed general manager Lines East there, succeeding the late J. C. Storbuck (RA, Feb. 13, p. 47). J. W. Terrill, assistant general manager Lines West, named general manager Lines West, omaha, Neb., to replace the late E. P. Stine (RA, May 15, p. 62).

CANADIAN NATIONAL.—James MacKay appointed branch manager—sales, Prince Albert, Sask., succeeding M. R. Kelly, resigned.

CANADIAN PACIFIC.—Bert O. Brown, assistant engineer in the chief engineer's office, appointed signal engineer, Atlantic region, Montreal.

CHICAGO & EASTERN ILLINOIS.—Offices now located at 646 Chicago Road, Chicago Heights, Ill. The city freight office remains at the road's former headquarters at 322 S. Michigan Avenue, Chicago, and the president will also maintain a second office at that address.

CHICAGO GREAT WESTERN.—G. E. Kellogg, acting secretary and acting comptroller. Oelwein, Iowa, elected secretary and comptroller.

ILLINOIS TERMINAL.—D. P. O'Connor named general agent, St. Louis, succeeding E. L. Mayberry, resigned. J. M. Fowler appointed assistant general freight agent, Chicago.

KANSAS CITY SOUTHERN.—Som C. Kennedy appointed general agent, Dallas, Tex.

MILWAUKEE.—Roymond E. Hibbord, assistant general freight traffic manager, rates and divisions, Chicago, appointed general freight traffic manager, rates and divisions there, succeeding G. M. Ryon, retired (RA, May 22, p. 43). Horold J. McKenno, assistant to vice president—traffic, replaces Mr. Hibbard.

MISSOURI PACIFIC.—Effective June 1, W. P. Ludwig, Jr. and S. L. Wright appointed executive representatives, Houston. Tex., and New Orleans, respectively, Mr. Wright succeeds George C. Stohlman, who retires May 31.

C. H. Bell, assistant trainmaster, Pine Bluff, Ark., named trainmaster, Jefferson City, Mo., succeeding C. H. Bernhardt, promoted.

Albert J. Connors, general agent, Passenger Traffic Department, St. Louis, retires May 31.

A. R. Miller, general land agent, St. Louis, named assistant to chief engineer, St. Louis, to succeed W. D. Kirkpatrick, advanced to chairman, branch line committee, St. Louis.

J. K. Wesley replaces Mr. Miller.

Effective June 1, Ernest J. Doerste appointed general agent, San Antonio, Tex., to succeed Earl J. Rottenstein, retiring.

NORFOLK & WESTERN.—A. R. Lewis appointed supervisor signals and communications. Crewe, Va., succeeding the late F. A. Smelt-

SANTA FE.-L. J. Riniker appointed general

agent and R. B. Brown named division freight and passenger agent, San Bernardino, Calif.

SOUTHERN.—Norman J. Hannah, Jr., and John E. Heiseth named assistant general freight agents. Washington, D. C. Mr. Hannah was formerly assistant to freight traffic manager at Atlanta and Mr. Helseth was assistant coal freight agent there. Sidney W. Beacham and Howard W. Talmodge, assistant general freight agents, New Orleans, La., retire June 1. Hugh C. Browning, commercial agent, Mobile, Ala., promoted to district freight agent, Laurel, Miss.

William R. Divine, deputy comptroller, elected comptroller, with headquarters remaining at Washington, D. C. He succeeds R. B. Curry who resigned to accept a position with another company.

TEXAS & PACIFIC.—George A. Craig, vice president-traffic, Chicago & Eastern Illinois, named assistant vice president-marketing. T&P, Dallas.

UNION RAILWAY.-J. E. Bernhardt appointed assistant superintendent, Memphis, Tenn.

WABASH.—R. P. Sadler, supervisor loading services and loss and damage prevention, St. Louis, appointed supervisor stationstrailer on flat car. C. F. Bratvogel, secretary to central traffic manager, named to succeed Mr. Sadler.

Industrial Traffic

Robert M. Hule, a member of the Traffic department of Spencer Kellogg & Sons, Inc., Buffalo, N.Y., has been promoted to the position of transportation analyst.

Jomes N. Zorvos, traffic manager, Continental Grain Co., St. Louis, has been appointed assistant to the vice president—traffic at New York. Mr. Zarvos will be succeeded by Ross Luitjens of the New York office.

Scott Poper Co. has reorganized its traffic and distribution service group. O. Doniel Evons has been named distribution service manager for the Eastern section of the United States. James F. Morse has been selected as distribution manager for the West. George M. Fullmore is the new traffic manager.

Edward T. Reiber has been appointed assistant general traffic manager, Philip Carey Mfg. Co., Cincinnati, Ohio, Mr. Reiber will continue to direct loading and shipping.

Wolter Vukin, assistant general traffic manager, Fruehauf Trailer Co., Detroit, has been appointed director of traffic.

Jomes C. Higgins, assistant general traffic manager-chemical. Pittsburgh Plotte Gloss Co., has been appointed manager of rates—chemical. C. Robert Looney, freight rate analyst—chemical, has been named assistant manager of rates—chemical. H. Bruce Reoves, Jr., assistant general traffic manager, habeen appointed manager of rates—glass and paint. John S. Grohum has been named assistant manager of rates—glass and paint. Jomes E. Weover, assistant general traffic manager—chemical, has been appointed







George A. Craig

manager of transportation. Irving G. Morgon has been named assistant manager of transportation. P. D. Mojesky appointed packing and loading engineer. Edward E. Choney named manager of routing. G. John Lombillotte, assistant to general traffic manager—chemical, appointed manager of planning. Worren W. Clark named office manager.

Frank G. Moore, who retired in February as general traffic manager of Columbia-Southern Chemical Corp., died April 29.

Supply Trade

The Adoms & Westloke Co. of Elkhart, Ind., has been named a fabricator and distributor for Armaplate, a rubber covered steel sheet marketed by the Goodyeor Tire & Rubber Co. of Akron, Ohio. The material will be handled through Adams & Westlake's transportation division.

Fairbanks, Morse & Co. has purchased the assets of the Herold Radio & Electronics Corp., Yonkers, N.Y.

Jomes L. Layton, transportation products sales representative, Alco Products, Inc., Los Angeles, has been appointed regional sales manager for transportation products in the Pacific region, at San Francisco.

James J. Van Horn has been appointed chief engineer, Signal and Communications Section, Western Railroad Supply Co., division of Western Industries, Inc., Chicago. He was formerly manager sales analysis, Union Switch & Signal.

Howard Swink Advertising, Inc., Marion, Ohio, has been appointed to handle the advertising and public relations program of the Wine Railway Appliance Co., Toledo.

Effective July 1, the name of National Malleable & Steel Castings Co. will be changed to National Castings Co. Donald F. Kittredge, sales manager, Transportation Products Division, New York, appointed assistant vice president, International Division, Cleveland.

OBITUARY

Lewis S. Billou, 77, who retired in 1954 as electrical engineer of the Bultimore & Ohio, died March 9 in New York.

Ray Morris, 82, who was managing editor of the Railway Age Gazette (predecessor of Railway Age) more than a half century ago, died May 18 at his home in New York. Mr. Morris retired in 1956 as a partner in Brown Brothers, Harriman & Co.

Joseph J. Ryan, 65, superintendent of terminals, Burlington and Colorado & Southern, Denver, died May 14 in that city.

Mergers: Tell the Public 'Why'

Merger-hopeful railroads were reminded last week that they must "sell" their plans not only to stockholders but to the public and affected employees as well.

John E. Slater, a partner in the firm of Coverdale & Colpitts, discussed merger economics in an address prepared for delivery before the New York Railroad Club May 25.

Mr. Slater, whose firm has conducted a number of railroad merger studies, left no doubt that he believes the benefits to be derived from consolidation far outweigh "certain debits."

"Because consolidations and mergers of competing lines strike at the problem of excess capacity and excess manpower," he declared, "they are of fundamental importance today in helping to solve the railways' financial problems."

But mergers are "in no sense a panacea," he said, and they "do create problems of public relations and also a serious problem of labor dislocation."

He said railroads must meet these problems by "appropriate campaigns to explain the reasons and the benefits to be derived by the public, especially the shipper and the consignee" and by "careful and sympathetic recognition of the labor problems created."

For the public, the problem is one of re-education, Mr. Slater suggested. "Several generations, who have been brought up to believe that in a free society free competition is absolutely essential, are inclined to overlook the fact that competition between railways is no longer the chief competition in transportation. The automobile, the truck, the airplane, and the modern inland waterway barge provide aggressive and keen competition. They provide assurance that no monopoly in transportation will take place. They, rather than the competing railway, are the agents which will make certain that there is no decrease in the amount and quality of service to the shipping and traveling public. This being the case, we should be equally sure that the railways, which remain the most important single factor in the transportation of goods in this country, should not through competition among themselves destroy their own effectiveness."

Mr. Slater offered statistical evidence to support his statement that railroads possess "substantial excess capacity which will not be utilized in the foreseeable future, except in the event of war."

"Recently," he said, "I had a study made of the density charts of some sixteen railroads distributed over the country, with a mileage of approximately 61,000, or 30% of that of all Class I railroads. A density of 1,350,000 net tons per mile of road per year is the equivalent of one through and one local freight train in each direction daily; yet, of the mileage of these railways, approximately 50% have failed to have such a density. Furthermore, 38.7% of the mileage of these railroads had a density less than half of this amount.

"From numerous studies made, we took a figure of \$5,000 per mile per year as a reasonable figure for the costs of out-of-pocket expense for maintenance and train service on light traffic lines. Using the average revenue per ton-mile of the railroads previously referred to, we found that a density of between 300,000 and 350,000 net tons per mile per year would be necessary to provide the out-of-pocket costs of \$5,000 per mile; yet 25% of the mileage of these sixteen railroads had less density than 350,000. Obviously a large amount of excess capacity is indicated by these figures.'

How much can merging railroads expect to save as a result of consolidation? Lack of experience makes it difficult to say, noted Mr. Slater, but he suggested 5% of the combined gross revenues as a "reasonable" figure.



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You Ought To Know...

Required shareholder approval of the GNP&B unification has been given—and now it's up to the ICC to make the next move, probably the scheduling of hearings. Stockholders of Great Northern and Northern Pacific approved consolidation overwhelmingly as did holders of the three closely-held companies — Burlington (largely GN and NP owned), SP&S (owned 50-50 by the Northerns) and Pacific Coast (owned by GN).

Caution signal on mergers would confront the ICC if the Senate adopts a resolution introduced by its majority whip, Senator Humphrey, for himself and other senators, including Majority Leader Mansfield and Chairman Magnuson of the Commerce Committee. Unlike pending House resolutions, which would suspend the ICC's authority to approve mergers, the Senate resolution urges the Commission to act "with extreme caution and full deliberation and to refrain from granting approvals unless such mergers would definitely be in the interest of better service to the public . . . and would conform to the long-range transportation needs of our country."

Government guaranty of a \$16,-000,000 loan to the Missouri-Kansas-Texas has been approved by the ICC. Proceeds will be used to reimburse the Katy treasury for expenditures made since Jan. 1, 1957, and for some additional capital outlays,

Northern Pacific's 100-mile, \$2.5-million CTC installation between Livingston and Laurel, Mont., will be in full operation by midsummer. Completion of the new segment will give NP central control over traffic on 340 miles of main line between Laurel and Missoula, Mont., via Helena.

Confidence in the New York Central's management under its president, A. E. Perlman, was expressed by John D. Murchison after Mr. Murchison and his brother, Clint W. Murchison, Jr., wrested control of Alleghany Corp. from Allan P. Kirby. Mr. Murchison was quoted as saying, "We'd like to see him [Mr. Perlman] stay." Alleghany owns controlling interest in NYC.

BLF&E President H. E. Gilbert sees "serious threats to our livelihood and safety," both in management's attempt to remove firemen from diesels and in what Mr. Gilbert terms a "longer-hours-at-less-pay" proposal put to the work rules commission by the railroads. The two efforts, he told an Ohio state BLF&E conference, are equally offensive to labor. [Note: BLF&E publicity on Mr. Gilbert's remarks shows a reversal of emphasis in job terminology. Heretofore, BLF-&E has referred to its people as firemen (helpers). Now it's helpers (firemen).]

Milwaukee Road's "Olympian Hiawatha," up for discontinuance on that part of its run west of Minneapolis, must continue to operate as far as Butte, Mont., under ICC order. The Butte-Tacoma, Wash., portion of the run, the ICC found, is not required by public convenience and necessity and may be discontinued (Milwaukee began the shortened operation last week, but noted that the train will operate to and from Deer Lodge, Mont., 40 miles west of Butte. "as a matter of operating convenience").

Pay and assignment rules in agreements with train and engine service employees are still the subjectmatter of the Presidential Railroad Commission's hearings in the so-"featherbedding" That phase of the management presentation got under way early this month (RA, May 15, p. 13), and various witnesses have since appeared in support of the contention that these rules cause unnecessary expenses totaling nearly \$350 million a year. The hearings, being held in Washington, will resume next week after having been in recess since May 24.

Maine Central's campaign to win agreement from other eastern roads for a general reduction in rates on poultry feed corn ended successfully in New York City last week. Maine poultry industry representatives, said the reduction would save them nearly \$500,000 a year and make it possible for Maine growers and processors to increase production by 50% within the next 10 years. The rate-cutting move means the end of a barge movement of corn and soy bean meal from Toledo, Ohio, to Augusta, Me.

Annual out-of-pocket loss of \$425,-000 will be stopped if Soo Line wins permission to discontinue four passenger trains—9 and 10, the "Winnipeger," between St. Paul-Minneapolis and Noyes, Minn.; and 13 and 14, between the Twin Cities and Portal, N.D. The "Winnipeger" application goes to the Minnesota Railroad and Warehouse Commission, the Portal service petition to the ICC.

A new Swiss electric train, the "Gothard," features a 3,400-hp locomotive capable of operating on each of the four different electrical systems in Western Europe through push-button adjustment. The train, with maximum speed of nearly 100 mph, is scheduled for service on the Trans-Europ Express network. Three similar trains are nearing completion.

Loans totaling \$89,050,000 for railway modernization abroad were made in 1960 by the Development Loan Fund. Other transport loans authorized by DLF included \$53,900,000 for highways, \$14,800,000 for telecommunications, \$42,100,000 for airlines and airports, and \$14,300,000 for waterway and harbor projects.

Chicago & North Western is petitioning to discontinue a pair of overnight passenger trains that didn't even come close to meeting crew costs out of revenues last year. The two trains—Nos. 217 and 224 operating between Chicago and Green Bay, Wis.—drew revenues of less than \$60,000 in 1960. Crew costs totaled \$147,-673. C&NW says net minimum annual savings will exceed \$400,-000 if the trains are dropped.

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Have Yankees Lost Their Zip?

Shippers—the customers of the transportation industry-are being mighty modest and restrained in exercising their right to the leading role in prescribing national transportation policy. These customers are paying several billion dollars more a year than they should be paying for freight transportation (Professor Ernest Williams' estimate). If present uneconomic trends continue, the wasteful outlays required of shippers will continue to climb.

Shippers and their organizations are not silent, of course, on the great issues of national transportation policy. Leaders among them express themselves on these issues from time to time-and, almost without exception, the opinions they make public are informed, wise and disinterested. There is, however, a wide difference in effectiveness between the calm testimony of a disinterested witness in a semijudicial proceeding, and the vigorous protests of the victim of organized oppression. In the present transportation situation, shippers and receivers of freight are not observers on the side-lines—they are the victims; and as long as they are willing to suffer politely and in comparative silence, nobody in authority is going to worry too much about them.

BEGINNING TO WAKE UP

Here and there, to be sure, shippers are beginning to awaken to the threat to their interests in the dangerous deterioration of the physical and financial condition of some essential railroads. We have seen a recent circular, addressed by the Manufacturers Association of Connecticut to its members, calling attention to the threat which exists to continued railroad service in that area, unless the local railroads get more freight business. A questionnaire was enclosed with the circular, asking members to indicate what changes in railroad rates, service and facilities would enable the respondents to give railroads more tonnage (and how much).

The accompanying chart shows how seriously the freight volume of New England railroads has declined, relative to that of the rest of the country. Revenue ton-miles in New England in 1960 were only 63% of the 1947 total, compared with 74% for Eastern railroads as a whole and 87% for all Class I railroads. Taking Western and Southern railroads alone—their revenue ton-miles in 1960 were

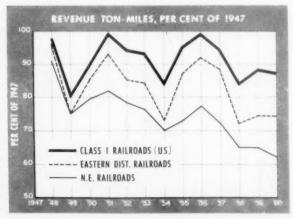
down only 1% below their 1947 total.

So the interest Connecticut manufacturers have shown, to see whether they can do something to improve their patronage of railroads, is certainly not amiss. Indeed, it may be wondered why this effort is not being duplicated, and with real intensity and determination, throughout New England; and, for that matter, in all areas where railroad patronage has shown serious declines. Top-level industrial statesmanship is not meeting this challenge.

At a conference on transportation last August, under the auspices of the National Academy of Sciences, one of the participants (Richard L. Meier) asserted that "an extrapolation of recent trends in New England railroads suggests that they would be forced out of business altogether in the 1970's, yet the needed capacity cannot easily be provided by alternative modes of transport." Is that a situation that industry leadership—not just in the Northeast, but nationally—can continue to view complacently?

Into the vacuum of leadership in transportation policy which industry has permitted to develop, the politicians have moved in; and, so far, at the state level in the Northeast, they have done a pretty commendable job. When you can get political leaders of different party affiliations in four different states to agree on a program of railroad tax reduction, that is no mean accomplishment. What action has there been on transportation policy by industry

leaders to compare with it? In 1919 the nation's railroads were in the hands of the government, facing the serious danger that they would stay there. It was not partisan politicians, or railroad men themselves, who succeeded in averting that catastrophe. Instead, it was the organized industrial and financial leadership of the country which succeeded in arousing the moral and economic and political conscience of the nation. This led to enactment of the Transportation Act of 1920 and a decade of progress and prosperity for the transportation industry, and for its customers as well. Nothing short of that same caliber of industrial statesmanshin is likely to come successfully with the chaotic mess that transportation is in today.





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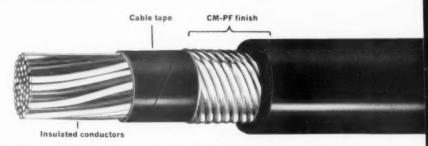
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